To, **Gpcb Id**: 10653
**Industry Name**: Bavla Eco Project Ltd

**Plot No.**: 1440 / P,C/O : BHARAT RICE MILL,OPP: TRIMURTI HOSPITAL,N.H.NO 8,Town:BAVLA,Pincode:382220

**Tal**: Bavla Dist:ABD(R-Sanand)
**Phone**: 9426068047

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Bavla Eco Project Ltd** (**10653**) situated at **1440 / P,C/O : BHARAT RICE MILL,OPP: TRIMURTI HOSPITAL,N.H.NO 8,Town:BAVLA,Pincode:382220** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 10653
**Industry Name**: Jay Chemical Industries Ltd (Unit-3)

**Plot No.**: 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170

To, **Aud Id**: 1349
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1349) shall carry out Environment audit work of M /s **Jay Chemical Industries Ltd (Unit-3)** (**10653**) situated at Plot No. 109/220, Phase 2, GIDC Vatva, Ahmedabad 382445 for the financial ye

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Jay Chemical Industries Ltd (Unit-3)

**Plot No.**: 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170

To, **Aud Id**: 1228
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1228) shall carry out Environment audit work of M /s **Jay Chemical Industries Ltd (Unit-3)** (**10653**) situated at Plot No. 109/220, Phase 2, GIDC Vatva, Ahmedabad 382445 for the financial ye

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Matangi Industries LLP

**Plot No.**: Plot No. 28, Phase 2, GIDC Vatva, Ahmedabad 382445

To, **Aud Id**: 1056
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1349) shall carry out Environment audit work of M /s **Matangi Industries LLP** (**1056**) situated at Plot No. 28, Phase 2, GIDC Vatva, Ahmedabad 382445 for the financial year 2019-20

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Odhav Enviro Project Ltd.

**Plot No.**: 25, 12-B, GIDC Odhav

Dist:Ahmedabad - 382415

To, **Aud Id**: 1011
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1011) shall carry out Environment audit work of M /s **Odhav Enviro Project Ltd.** (**10653**) situated at Plot No. 25, 12-B, GIDC Odhav, Ahmedabad 382415 for the financial year **2019-20** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653

**Industry Name**: Rhythm Biocare(Common Biomedical Waste Treatment Facility)

**Plot No.**: Survey No.331, Chadotar gadh Road, Vedancha-385511, Ta:- Palanpur, Dist:- Banaskantha

To, **Aud Id**:1540

**Auditor Name**: Swarnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarnim Startup and Innovation University** (1540) shall carry out Environment audit work of M /s **Rhythm Biocare(Common Biomedical Waste Treatment Facility)** (1435) situated at Survey No.331, Chadotar gadh Road, Vedancha- 385511, Ta:- Palanpur, Dist:- Banaskantha. for the financial year 2019-20

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Sanand Eco Project Ltd

**Plot No.**: 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170

To, **Aud Id**: 1124
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1114) shall carry out Environment audit work of M /s **Sanand Eco Project Ltd.** (**10653**) situated at Plot No. 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170 for the financial year **2019-20** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653

**Industry Name**: The Bavla Eco Project.
Jal Shuddhikaran sahakari Mandli Ltd.(CETP)

**Plot No.**: Survey No. 1440/1,
Opp.Vijyalaxmi Rice Mill, Bavla,
Ahmedabad-382220.

To, **Aud Id**:1435

**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway,
Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1435) shall carry out Environment audit work of M /s **The Bavla Eco Project. Jal Shuddhikaran sahakari Mandli Ltd.(CETP)** (1435) situated at Survey No. 1440/1, Opp.Vijyalaxmi Rice Mill, Bavla, Ahmedabad-382220. for the financial year 2019-20

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

Digitally signed by Ragin Ravindrabhai Shah
DN: c=IN, o=Personal, title=4505, pseudonym=02aef98b114542e5bb44d53ee4d1fcce, 2.5.4.20=f2d4874d4a5d2b7bd89e3bee9630b9e95408942dc4f9537c58eeb4002f291483, postalCode=380015, st=Gujarat, serialNumber=0f2600a2fa7730fee826dcaebe10f5cf7183c41741552ca365cbb74076b64406, cn=Ragin Ravindrabhai Shah
Date: 2024.10.10 10:45:46 +05'30'

To, **Gpcb Id**: 11536
**Industry Name**: Gujarat Vepari Maha Mandal Sahakari Audogic Vasahat Ltd - Cetp

**Plot No.**: Plot No: Phase No: ,ODHAV,,Town:AHMEDABAD,Pincode:382415

**Tal**: Daskroi Dist:Ahmedabad-Vatva
**Phone**: 9427614921

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Gujarat Vepari Maha Mandal Sahakari Audogic Vasahat Ltd - Cetp** (**11536**) situated at **Plot No: Phase No: ,ODHAV,,Town:AHMEDABAD,Pincode:382415** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 14438
**Industry Name**: The Green Environment Services Co.Op.Society Ltd (Cetp)

**Plot No.**: Plot No: 244 - 251 ,Phase No: II,-,Town:AHMEDABAD,Pincode:382445

**Tal**: Ahmedabad-Vatva Dist:Ahmedabad-Vatva

**Phone**: 8141907069

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **The Green Environment Services Co.Op.Society Ltd (Cetp)** (**14438**) situated at **Plot No: 244 - 251 ,Phase No: II,-,Town:AHMEDABAD,Pincode:382445** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 16770
**Industry Name**: Gujarat Ambuja Exports Ltd (S.K.)

**Plot No.**: 1,,BIO CHEMICAL DIVISION,VRINDAVAN ROAD,Town:PO-DALPUR,Pincode:383120

**Tal**: Prantij Dist:SabarKantha
**Phone**: 9825300989

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Gujarat Ambuja Exports Ltd (S.K.)** (**16770**) situated at **1,,BIO CHEMICAL DIVISION,VRINDAVAN ROAD,Town:PO-DALPUR,Pincode:383120** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 24521
**Industry Name**: Srf Limited

**Plot No.**: D-II/I ,Dahej ,Dahej ,Town:Dahej,Pincode:392130

**Tal**: Vagra Dist:Bharuch

**Phone**: 7069116447

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Srf Limited** (**24521**) situated at **D-II/I ,Dahej ,Dahej ,Town:Dahej,Pincode:392130** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 32515
**Industry Name**: Samvedna Bmw Incinerator

**Plot No.**: 217/1,CHANDRAPURA INDUSTRIAL ESTATE,tal: halol, dist: panchmahal,Town:CHANDRAPURA,Pincode:389350

**Tal**: Halol Dist:Panchmahals

**Phone**: 9227125467

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Samvedna Bmw Incinerator** (**32515**) situated at **217/1,CHANDRAPURA INDUSTRIAL ESTATE,tal: halol, dist: panchmahal,Town:CHANDRAPURA,Pincode:389350** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 32966
**Industry Name**: Rallis India Limited

**Plot No.**: Z-110,DAHEJ SEZ,-,Town:DAHEJ SEZ2,Pincode:392130

**Tal**: Vagra Dist:Bharuch

**Phone**: 8128552977

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Rallis India Limited** (**32966**) situated at **Z-110,DAHEJ SEZ,-,Town:DAHEJ SEZ2,Pincode:392130** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

To, **Gpcb Id**: 37670
**Industry Name**: Detox India Private Ltd (old name:Ankleshwar Cleaner Process Tech Centre P. Ltd)

**Plot No.**: D-2/CH-135 , GIDC , DAHEJ II ,,GIDC , DAHEJ II ,,GIDC , DAHEJ II ,,Town:vagra,Pincode:392140

**Tal**: Vagra Dist:Bharuch
**Phone**: 9879512581

To, **Aud Id**: 2331
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2023-24**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (**2331** ) shall carry out Environment audit work of M /s **Detox India Private Ltd (old name:Ankleshwar Cleaner Process Tech Centre P. Ltd)** (**37670**) situated at **D-2/CH-135 , GIDC , DAHEJ II ,,GIDC , DAHEJ II ,,GIDC , DAHEJ II ,,Town:vagra,Pincode:392140** for the financial year **2023-24** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

**Quotation**

**Ref: SIT/Env/Quotation/2023-24/004** Date: 01/8/2023

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**
**M/s. Gujarat Ambuja Export Ltd.,**
**Plot No: 1, Bio Chemical Division,**
**Dalpur-383120,**
**Tal- Prantij, Dist:- Sabarkatha**

| (A) | Sr.No | Particular | Parameter | Parameter charges | Location | No.of Visit | Total (Rs.) |
|---|---|---|---|---|---|---|---|
| | 1 | Ambient Air | Sampling | 3500 | 3 | 3 | 31500 |
| | | | $PM_{10}$ | 1050 | 3 | 3 | 9450 |
| | | | $PM_{2.5}$ | 1800 | 3 | 3 | 16200 |
| | | | $SO_2$ | 1050 | 3 | 3 | 9450 |
| | | | $NO_X$ | 1050 | 3 | 3 | 9450 |
| | | | **Total Charges** | | | | **76050** |
| | 2 | Flue Gas Stack Monitoring | Stack Sampling | 9600 | 2 | 3 | 57600 |
| | | | Sampling for Nox/Sox | 3500 | 2 | 3 | 21000 |
| | | | Particulate Matter | 1050 | 2 | 3 | 6300 |
| | | | Mercury | 1400 | 1 | 3 | 4200 |
| | | | SO2 | 1050 | 2 | 3 | 6300 |
| | | | NOX | 1050 | 2 | 3 | 6300 |
| | | | **Total Charges** | | | | **101700** |
| | 3 | Stack Monitoring | Stack Sampling | 9600 | 6 | 3 | 172800 |
| | | | Sampling for Nox/Sox | 3500 | 6 | 3 | 63000 |
| | | | Particulate Matter | 1050 | 6 | 3 | 18900 |
| | | | SO2 | 1050 | 6 | 3 | 18900 |
| | | | NOX | 1050 | 6 | 3 | 18900 |
| | | | **Total Charges** | | | | **292500** |
| | 4 | Wastewater (CETP Inlet & PST Outlet) | Sampling | 960 | 2 | 3 | 5760 |
| | | | Additional Sampling (COD, BOD, Oil&Grease) | 1320 | 2 | 3 | 7920 |
| | | | pH | 110 | 2 | 3 | 660 |
| | | | color | 175 | 2 | 3 | 1050 |
| | | | Temperature | 110 | 2 | 3 | 660 |
| | | | TSS | 270 | 2 | 3 | 1620 |
| | | | Oil & Grease | 350 | 2 | 3 | 2100 |
| | | | Flouride | 350 | 2 | 3 | 2100 |
| | | | Sulpheids | 350 | 2 | 3 | 2100 |
| | | | Ammonical Nitrogen | 1050 | 2 | 3 | 6300 |
| | | | BOD | 1050 | 2 | 3 | 6300 |
| | | | COD | 620 | 2 | 3 | 3720 |
| | | | Chloride | 180 | 2 | 3 | 1080 |
| | | | Sulphete | 270 | 2 | 3 | 1620 |
| | | | TDS | 180 | 2 | 3 | 1080 |
| | | | Sodium | 1050 | 2 | 3 | 6300 |
| | | | **Total Charges** | | | | **50370** |
| | 5 | ETP sludge | Sampling Charges | 1800 | 1 | 3 | 5400 |
| | | | pH | 175 | 1 | 3 | 525 |
| | | | Moisture Contant | 175 | 1 | 3 | 525 |
| | | | Total Alkalinity | 180 | 1 | 3 | 540 |
| | | | Chloride | 270 | 1 | 3 | 810 |
| | | | Leachate preparation | 1750 | 1 | 3 | 5250 |
| | | | **Total Charges** | | | | **13050** |
| | 6 | Noise Level Monitoring | **Day time** | **7000** | **1** | **2** | 14000 |
| | | | **Total Charges** | | | | **14000** |
| | | | | | | | |
| | | | | | | | |
| **(B)** | 7 | Environment Audit report | Preparation fees | 25000 | 1 | 2 | **50000** |
| | 8 | Pre-Audit visit | Travelling cost | 0 | | | 0 |
| | | Pre-Audit visit | DA | 520 | 1 | 4 | **2080** |
| | 9 | Audit visit | Travelling cost | 0 | | | 0 |
| | | Audit visit | DA | 520 | 1 | 4 | **2080** |
| **Total** | | | | | | | **601830.00** |
| **GST (18%)** | | | | | | | **108329.40** |
| **GRAND TOTAL** | | | | | | | **710159.40** |

**SCOPE OF WORK & GENERAL CONDITIONS:**

** This is a tentative quotation, actual bill is based on field and analysis data

1. During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.
2. It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.
3. The sample and data collections will be made by our college Four times in a year.
4. Site plan, ETP layout and stack layout to be provided by you to include in the reports.
5. Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.
6. We shall prepare final environmental audit reports twise in a year and submit to you in five presentable copies
7. Traveling cost not included in Quotation of 2023-24, So, Traveling facility will arrange by Industry.

**Payment Terms**

1. The Environment Audit payment shall be chargedafter as per visit to visit

1
i) Pre Audit
ii) 1st Audit monitoring visit charges
iii) 2nd Audit monitoring visit charges
iv) 3rd Audit monitoring visit charges
v) 4th Audit monitoring visit charges
vi) Environment Audit reports Charges
(Env. Audit fees Rs. 40,000/-(20000 per Report) will be charged before submission of Env. Audit Report)

2 The above payments are requested by DD/ Cheque drawn in favour of "Swarrnim Institute of Technology" payable at Ahmedabad

4 We, Swarrnim Institute of Technology (Schedule-1 auditor) is a constituent institute with the Swarnim Start up and Innovation University managed by the G.P. Jain Charitable Trust. The trust is established under Mumbai Public Trust Act 1950. Our GST number is 24AABTG1259L1ZO AND PAN Number is AABTG1259L.

## Quotation

**Ref: SIT/Env/Quotation/2023-24/002** Date: 25/07/2023

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**
**M/s. The Green Environment Services Co. Op. Society Ltd (CETP),**
**Plot no. 242/1, 242/3, 242/A, 244-251, Phase II**
**GIDC - Vatva , Ahmedabad -382445**

| (A) | Sr.No | Particular | Parameter | Parameter charges | Location | No.of Visit | Total (Rs.) |
|---|---|---|---|---|---|---|---|
| | 1 | Flue Gas Emission | Sampling Charge | 9600 | 4 | 1 | 38400 |
| | | | Sampling of Nox/Sox | 3500 | 4 | 1 | 14000 |
| | | | PM | 1050 | 4 | 1 | 4200 |
| | | | SOx | 1050 | 4 | 1 | 4200 |
| | | | NOx | 1050 | 4 | 1 | 4200 |
| | | | **Total Ananysis** | | | | **65000** |
| | 2 | Wastewater (CETP Inlet) | **Sampling** | 960 | 3 | 4 | 11520 |
| | | Secondery Outlate, Sprey Dryer inlate | Additional sampling (BOD, COD) | 1320 | 3 | 4 | 15840 |
| | | | pH | 110 | 3 | 4 | 1320 |
| | | | color | 175 | 3 | 4 | 2100 |
| | | | Temperature | 110 | 3 | 4 | 1320 |
| | | | TSS | 180 | 3 | 4 | 2160 |
| | | | Ammonical Nitrogen | 1050 | 3 | 4 | 12600 |
| | | | BOD | 1050 | 3 | 4 | 12600 |
| | | | COD | 620 | 3 | 4 | 7440 |
| | | | Fixed Dissolved Solid | 270 | 3 | 4 | 3240 |
| | | | **Total Ananysis** | | | | **70140** |
| | 3 | Wastewater (CETP outlet) | Sampling | 960 | 1 | 4 | 3840 |
| | | | Additional sampling (Oil & Grease, BOD, COD) | 1320 | 1 | 4 | 5280 |
| | | | pH | 110 | 1 | 4 | 440 |
| | | | Temperature | 110 | 1 | 4 | 440 |
| | | | Colour | 175 | 1 | 1 | 175 |
| | | | Suspended Solid | 180 | 1 | 4 | 720 |
| | | | Fixed dissolved solids | 180 | 1 | 1 | 180 |
| | | | Oil & Grease | 350 | 1 | 1 | 350 |
| | | | Phenolic Compound | 350 | 1 | 1 | 350 |
| | | | Sulphides | 350 | 1 | 1 | 350 |
| | | | Ammonical Nirogen | 1050 | 1 | 1 | 1050 |
| | | | Total Chromium | 530 | 1 | 1 | 530 |
| | | | Hexavalent Chromium | 350 | 1 | 1 | 350 |
| | | | BOD | 1050 | 1 | 4 | 4200 |
| | | | COD | 620 | 1 | 4 | 2480 |
| | | | Cynide | 620 | 1 | 1 | 620 |
| | | | Flouride | 350 | 1 | 1 | 350 |
| | | | Chloride | 180 | 1 | 1 | 180 |
| | | | Sulphate | 270 | 1 | 1 | 270 |
| | | | Total Kjendhal Nitrogen | 620 | 1 | 4 | 2480 |
| | | | Mercury | 1400 | 1 | 1 | 1400 |
| | | | Lead | 530 | 1 | 1 | 530 |
| | | | Cadmium | 530 | 1 | 1 | 530 |
| | | | Copper | 530 | 1 | 1 | 530 |
| | | | Nickel | 530 | 1 | 1 | 530 |
| | | | Zinc | 530 | 1 | 1 | 530 |
| | | | Arsenic | 530 | 1 | 1 | 530 |
| | | | Selenium | 530 | 1 | 1 | 530 |
| | | | Boron | 530 | 1 | 1 | 530 |
| | | | **Total Ananysis** | | | | **30275** |
| | 4 | ETP sludge | Sampling Charges | 1800 | 1 | 4 | 7200 |
| | | | pH | 175 | 1 | 4 | 700 |
| | | | Moisture Contant | 175 | 1 | 4 | 700 |
| | | | Total Alkalinity | 180 | 1 | 4 | 720 |
| | | | Chloride | 270 | 1 | 4 | 1080 |
| | | | Leachate preparation | 1750 | 1 | 4 | 7000 |
| | | | **Total Ananysis** | | | | **17400** |
| | 5 | Dry Sludge Sampling | Sampling Charges | 1800 | 1 | 4 | 7200 |
| | | | pH | 175 | 1 | 4 | 700 |
| | | | Moisture Contant | 175 | 1 | 4 | 700 |
| | | | Total Alkalinity | 180 | 1 | 4 | 720 |
| | | | Chloride | 270 | 1 | 4 | 1080 |
| | | | Leachate preparation | 1750 | 1 | 4 | 7000 |
| | | | **Total Ananysis** | | | | **17400** |
| | 6 | Iron Sludge sampling | pH | 175 | 1 | 1 | 175 |
| | | | Moisture Contant | 175 | 1 | 1 | 175 |
| | | | Total Alkalinity | 180 | 1 | 1 | 180 |
| | | | Chloride | 270 | 1 | 1 | 270 |
| | | | Leachate preparation | 1750 | 1 | 1 | 1750 |
| | | | **Total Ananysis** | | | | **2550** |
| | 7 | Noise Level | Day Time | 7000 | 2 | 2 | **28000** |
| | | | | | | | |
| | | Environment Audit report | Preparation fees | 25000 | 1 | 2 | **50000** |
| | | Pre-Audit visit | Travelling cost | | | | |
| **(B)** | | Pre-Audit visit | DA (4 Person) | 520 | 1 | 4 | 2080 |
| | | Audit visit | Travelling cost | | | | |
| | | Audit visit | DA (4 Person) | 520 | 4 | 3 | 6240 |
| | | **Total** | | | | | **289085** |
| | | **GST (18%)** | | | | | **52035.30** |
| | | **Total** | | | | | **341120.30** |

| | | |
|---|---|---|
| | | |
| | | |

**SCOPE OF WORK & GENERAL CONDITIONS:**

** This is the Budget Quotation (First Half) not for Actual cost, The Actual bill as per Audit Base

1. During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.
2. It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.
3. The sample and data collections will be made by our college Four times in a year.
4. Site plan, ETP layout and stack layout to be provided by you to include in the reports.
5. Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.
6. We shall prepare final environmental audit reports twise in a year and submit to you in five presentable copies

**Quotation**

**Ref: SIT/Env/Quotation/2023-24/006** Date: 09/09/2023

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**
**M/s. Bavla Eco Project,**
**Plot No. 14440/P, C/O Bharat Rice mill, Opp Trimurti Hospital NH No 8,**
**Ta. Bavla, Ahmedabad**

| (A) | Sr.No | Particular | Parameter | Parameter charges | Location | No.of Visit | Total (Rs.) |
|---|---|---|---|---|---|---|---|
| | 1 | Ambient Air | Sampling | 3500 | 1 | 3 | 10500 |
| | | | $PM_{10}$ | 1050 | 1 | 3 | 3150 |
| | | | $PM_{2.5}$ | 1800 | 1 | 3 | 5400 |
| | | | $SO_2$ | 1050 | 1 | 3 | 3150 |
| | | | $NO_X$ | 1050 | 1 | 3 | 3150 |
| | | | | **3** | | | **25350** |
| | 2 | Wastewater (CETP Inlet) | **Sampling** | 960 | 1 | 3 | 2880 |
| | | | **Addition Sampling (Oil & Grease, COD)** | 880 | 2 | 3 | 5280 |
| | | | pH | 110 | 1 | 3 | 330 |
| | | | color | 175 | 1 | 3 | 525 |
| | | | Temperature | 110 | 1 | 3 | 330 |
| | | | TSS | 180 | 1 | 3 | 540 |
| | | | Oil & Grease | 350 | 1 | 3 | 1050 |
| | | | COD | 620 | 1 | 3 | 1860 |
| | | | BOD | 1050 | 1 | 3 | 3150 |
| | | | | **3** | | | **15945** |
| | 3 | Wastewater (CETP outlet) | Sampling | 550 | 1 | 3 | 1650 |
| | | | **Addition Sampling (Oil & Grease, COD)** | 880 | 1 | 3 | 2640 |
| | | | pH | 110 | **1** | 3 | 330 |
| | | | Temperature | 110 | **1** | 3 | 330 |
| | | | Colour | 175 | **1** | 3 | 525 |
| | | | Suspended Solid | 180 | **1** | 3 | 540 |
| | | | Oil & Grease | 350 | **1** | 3 | 1050 |
| | | | BOD | 1050 | **1** | 3 | 3150 |
| | | | COD | 620 | **1** | 3 | 1860 |
| | | | Chloride | 180 | **1** | 3 | 540 |
| | | | Sulphate | 270 | **1** | 3 | 810 |
| | | | Sulphades | 350 | **1** | 3 | 1050 |
| | | | Ammonical Nirogen | 350 | **1** | 3 | 1050 |
| | | | | **3** | | | **15525** |
| | 4 | Sound level monitoring | Day time | **7000** | **1** | **1** | 7000 |
| | | Only Two Time | | | | | **7000** |
| | | | | | | | |
| **(B)** | 6 | Environment Audit report | Preparation fees | 20000 | 1 | 1 | **20000** |
| | 7 | Pre-Audit visit | Travelling cost | 0 | | | |
| | | Pre-Audit visit | DA | 520 | 1 | 1 | **520** |
| | 8 | Audit visit | Travelling cost | 0 | | | |
| | 9 | Audit visit | DA | 520 | 3 | 1 | **1560** |
| **Total** | | | | | | | **85900.00** |
| **GST (18%)** | | | | | | | **15462.00** |
| **Grand Total** | | | | | | | **101362.00** |

**SCOPE OF WORK & GENERAL CONDITIONS:**

1. This Quotation is tentative, actual bill based on Field visit and data
2. During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.
3. It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.
4. The sample and data collections will be made by our college Four times in a year.
5. Site plan, ETP layout and stack layout to be provided by you to include in the reports.
6. Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.
7. We shall prepare final environmental audit reports twise in a year and submit to you in five presentable copies
8. Traveling cost not included in Quotation of 2023-24, So, Traveling facility will arrange by Industry, OR Encase on same day

**Payment Terms**

1. 1. The Environment Audit payment shall be chargedafter as per visit to visit
   i) Pre Audit
   ii) 1st Audit monitoring visit charges
   iii) 2nd Audit monitoring visit charges
   iv) 3rd Audit monitoring visit charges
   v) 4th Audit monitoring visit charges
   vi) Environment Audit reports Charges
   (Env. Audit fees Rs. 50,000/-(25000 per Report) will be charged before submission of Env. Audit Report)
2. The above payments are requested by DD/ Cheque drawn in favour of "Swarmim Institute of Technology" payable at Ahmedabad
3. Acount Details:
4. We, Swarrnim Institute of Technology (Schedule-1 auditor) is a constituent institute with the Swarnim Start up and Innovation University managed by the G.P. Jain Charitable Trust. The trust is established under Mumbai Public Trust Act 1950. Our GST number is 24AABTG1259L1ZO AND PAN Number is AABTG1259L.

**Quotation**

**Ref: SIT/Env/Quotation/2023-24/003** 01-08-2023

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**

**M/s. Detox India Pvt Ltd,**

**Plot No. D-2/CH135, GIDC Dahej II, Ta. Vagra Dist.**

**Bharuch**

| (A) | Sr.No | Particular | Parameter | Location | Parameter charges | Per Vist | Total |
|---|---|---|---|---|---|---|---|
| | 1 | Wastewater (STP Inlet) | **Sampling** | 1 | 960 | 4 | 3840 |
| | | | **Aditional Charges (BOD)** | 1 | 440 | 4 | 1760 |
| | | | pH | 1 | 110 | 4 | 440 |
| | | | BOD | 1 | 1050 | 4 | 4200 |
| | | | TSS | 1 | 180 | 4 | 720 |
| | | | **Total Charges** | | | | **10960** |
| | 2 | Wastewater (CETP outlet) | Sampling | 1 | 960 | 4 | 3840 |
| | | | Aditional Chaarges (COD,BOD and Oil & Grease) | 1 | 1320 | 4 | 5280 |
| | | | pH | 1 | 110 | 4 | 440 |
| | | | Temperature | 1 | 110 | 4 | 440 |
| | | | Colour | 1 | 175 | 4 | 700 |
| | | | Suspended Solid | 1 | 180 | 4 | 720 |
| | | | Oil & Grease | 1 | 350 | 4 | 1400 |
| | | | BOD | 1 | 1050 | 4 | 4200 |
| | | | COD | 1 | 620 | 4 | 2480 |
| | | | Chloride | 1 | 180 | 4 | 720 |
| | | | Sulphate | 1 | 270 | 4 | 1080 |
| | | | Total Dissolved Solid | 1 | 180 | 4 | 720 |
| | | | Sulphades | 1 | 350 | 4 | 1400 |
| | | | Sodium Absorption ratio | 1 | 1050 | 4 | 4200 |
| | | | Ammonical Nirogen | 1 | 350 | 4 | 1400 |
| | | | Perscent Sodium | 1 | 350 | 4 | 1400 |
| | | | **Total Charges** | | | | **30420** |
| | | Biological Sampling (STP) | Biological Smpling | **1** | 1400 | 4 | 5600 |
| | | | Fecal Coliform | 1 | 620 | 4 | 2480 |
| | | | **Total Charges** | | | | **8080** |
| | | Sound level monitoring | Day time | 1 | 7000 | 2 | 14000 |
| | | | Night Time | | - | | |
| | | | **Total Charges** | | | | **14000** |
| | | Stack Monitoring | Sampling Charges | 2 | 9600 | 1 | 19200 |
| | | 1, Hot Air Generator, 2, DG Set Monitoring Onec in Audit period | Sampling Sox/Nox | 2 | 3500 | 1 | 7000 |
| | | | SO2 | 2 | 1050 | 1 | 2100 |
| | | | NOx | 2 | 1050 | 1 | 2100 |
| | | | Total Particulate Matter | 2 | 1050 | 1 | 2100 |
| | | | **Total Charges** | | | | **32500** |
| | | Stack Monitoring | Sampling Charges | 1 | 9600 | 4 | 38400 |
| | | Incinarator 1&2 | Sampling Sox/Nox | 1 | 3500 | 4 | 14000 |
| | | | SO2 | 1 | 1050 | 4 | 4200 |
| | | | NOx | 1 | 1050 | 4 | 4200 |
| | | | Total Particulate Matter | 1 | 1050 | 4 | 4200 |
| | | | HCL | 1 | 620 | 4 | 2480 |
| | | | CO | 1 | 1050 | 4 | 4200 |
| | | | Total Organic Carbon | 1 | 880 | 4 | 3520 |
| | | | **Total Charges** | | | | **75200** |
| | 5 | Vaporation | Acetic Acid Vapours | 1 | | 4 | 0 |
| | | | Carbon Monoxide | 1 | 1050 | 4 | 4200 |
| | | | Hydrogen Sulphide | 1 | 1050 | 4 | 4200 |
| | | | Sulpher Dioxide | 1 | 1050 | 4 | 4200 |
| | | | **Total Charges** | | | | **12600** |
| | | | | | | | |
| **(B)** | 6 | Environment Audit report | Preparation fees | | **25000** | **2** | **50000** |
| | 7 | Pre-Audit visit | Travelling cost | | | | |
| | | Pre-Audit visit | DA | 1 | 520 | 4 | 2080 |
| | 7 | Audit visit | Travelling cost | | | | |
| | 8 | Audit visit | DA | 3 | 520 | 4 | 6240 |
| **Total** | | | | | | | **242080** |
| **GST (18%)** | | | | | | | **43574.4** |
| **Grand Total** | | | | | | | **285654** |

**SCOPE OF WORK & GENERAL CONDITIONS:**

** This is the Tentative quotation, Actual bill on the based on Field and Analysis

1. During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.
2. It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.
3. The sample and data collections will be made by our college Three times in a year.
4. Site plan, ETP layout and stack layout to be provided by you to include in the reports.
5. Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.
6. We shall prepare final environmental audit reports onece in a year and submit to you in five presentable copies

| | | |
|---|---|---|
| | | Traveling cost not included in Quotation of 2023-24, So, Traveling facility will arrange by Industry, OR Encase in the same day |
| **Payment Terms** | | |
| | 1 | i) Pre Audit<br>ii) 1st Audit monitoring visit charges<br>iii) 2nd Audit monitoring visit charges<br>iv) 3rd Audit monitoring visit charges<br>v) 4th Audit monitoring visit charges<br>vi) Environment Audit reports Charges<br>(Env. Audit fees Rs. 50,000/-(25000 per Report) will be charged before submission of Env. Audit Report) |

# Quotation

**Ref: SIT/Env/Quotation/2023-24/001** Date: 25/07/2023

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**
**M/s. Gujarat Vepari Maha Mandal Sahakari Audhyogic Vasahat ltd (CETP),**
**GIDC - Odhav , Ahmedabad -382415**

| (A) | Sr.No | Particular | Parameter | Parameter charges | Location | No.of Visit | Total (Rs.) |
|---|---|---|---|---|---|---|---|
| | 1 | Wastewater (CETP Inlet) | **Sampling** | 960 | 1 | 4 | 3840 |
| | | | Additional sampling (Oil & Grease, BOD, COD) | 1320 | 1 | 4 | 5280 |
| | | | pH | 110 | 1 | 4 | 440 |
| | | | Temperature | 110 | 1 | 4 | 440 |
| | | | color | 175 | 1 | 1 | 175 |
| | | | TSS | 180 | 1 | 4 | 720 |
| | | | Oil & Grease | 350 | 1 | 1 | 350 |
| | | | Sulphides | 350 | 1 | 1 | 350 |
| | | | Ammonical Nitrogen | 1050 | 1 | 4 | 4200 |
| | | | BOD | 1050 | 1 | 4 | 4200 |
| | | | COD | 620 | 1 | 4 | 2480 |
| | | | Fixed Dissolved Solid | 270 | 1 | 4 | 1080 |
| | | | **Total Ananysis** | | | | **23555** |
| | 4 | Wastewater (CETP outlet) | Sampling | 960 | 1 | 4 | 3840 |
| | | | Additional sampling (Oil & Grease, BOD, COD) | 1320 | 1 | 4 | 5280 |
| | | | pH | 110 | 1 | 4 | 440 |
| | | | Temperature | 110 | 1 | 4 | 440 |
| | | | Colour | 175 | 1 | 1 | 175 |
| | | | Suspended Solid | 180 | 1 | 4 | 720 |
| | | | Oil & Grease | 350 | 1 | 1 | 350 |
| | | | Fixed dissolved solids | 180 | 1 | 4 | 720 |
| | | | Flouride | 350 | 1 | 1 | 350 |
| | | | Sulphides | 350 | 1 | 1 | 350 |
| | | | Ammonical Nirogen | 1050 | 1 | 4 | 4200 |
| | | | Total Kjendhal Nitrogen | 620 | 1 | 1 | 620 |
| | | | BOD | 1050 | 1 | 4 | 4200 |
| | | | COD | 620 | 1 | 4 | 2480 |
| | | | Total Residual Chlorine | 180 | 1 | 1 | 180 |
| | | | Sodium Absorption Ratio | 1050 | 1 | 1 | 1050 |
| | | | Chloride | 180 | 1 | 1 | 180 |
| | | | Sulphate | 270 | 1 | 1 | 270 |
| | | | | | | | **25845** |
| | 7 | Noise Level | Day Time | 7000 | 1 | 1 | **7000** |
| | | | | | | | |
| **(B)** | 8 | Environment Audit report | Preparation fees | 15000 | | 2 | **30000** |
| | | Pre-Audit visit | Travelling cost | | | | |
| | | Pre-Audit visit | DA (3 Person) | 520 | **1** | 4 | 2080 |
| | | Audit visit | Travelling cost | | | | |
| | | Audit visit | DA (3 Person) | 520 | **3** | 4 | 6240 |
| **Total** | | | | | | | **94720.00** |
| **GST (18%)** | | | | | | | **17049.60** |
| **Grand Total** | | | | | | | **111769.60** |

**SCOPE OF WORK & GENERAL CONDITIONS:**

** This is the Budget Quotation (First Half) not for Actual cost, The Actual bill as per Audit Base

1. During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.
2. It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.
3. The sample and data collections will be made by our college Four times in a year.
4. Site plan, ETP layout and stack layout to be provided by you to include in the reports.
5. Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.
6. We shall prepare final environmental audit reports twise in a year and submit to you in five presentable copies

**Payment Terms**

1. 1. The Environment Audit payment shall be chargedafter as per visit to visit
   i) Pre Audit
   ii) 1st Audit monitoring visit charges
   iii) 2nd Audit monitoring visit charges
   iv) 3rd Audit monitoring visit charges
   v) 4th Audit monitoring visit charges
   vi) Environment Audit reports Charges
   (Env. Audit fees Rs. 40,000/-(20000 per Report) will be charged before submission of Env. Audit Report)
2. We, Swarrnim Institute of Technology (Schedule-1 auditor) is a constituent institute with the Swarnim Start up and Innovation University managed by the G.P. Jain Charitable Trust. The trust is established under Mumbai Public Trust Act 1950. Our GST number is 24AABTG1259L1ZO AND PAN Number is AABTG1259L.

**Quotation**

**Ref: SIT/Env/Quotation/2023-24/007** Date: 02/02/2024

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**
**M/s. Samvedna BMW Incinerator,**
**Plot No. 217/1, Chandrapur Industrial Estate, Chandrapura**
**Ta. Halol, Panchmahal -389350**

| (A) | Sr.No | Particular | Parameter | Samples per Visit | Charges | Visit | Charges |
|---|---|---|---|---|---|---|---|
| | 1 | Ambient Air | Sampling | 1 | 10500 | 3 | 31500 |
| | | | $PM_{10}$ | 1 | 1050 | 3 | 3150 |
| | | | $SO_2$ | 1 | 1050 | 3 | 3150 |
| | | | $NO_X$ | 1 | 1050 | 3 | 3150 |
| | | | **Total Charges** | | | | **40950** |
| | 2 | Waste Water/Effluent | **Grab Sampling(Etp inlet, Outlet.)** | 2 | 960 | 3 | 5760 |
| | | | Additional Grab Sampling (COD,BOD, Oil & Grease) | 2 | 1320 | 3 | 7920 |
| | | | pH | 2 | 110 | 3 | 660 |
| | | | Temperature | 2 | 110 | 3 | 660 |
| | | | TSS | 2 | 180 | 3 | 1080 |
| | | | Oil & Grease | 2 | 350 | 3 | 2100 |
| | | | BOD | 2 | 1050 | 3 | 6300 |
| | | | COD | 2 | 620 | 3 | 3720 |
| | | | **Total Charges** | | | | **28200** |
| | | Sewage Sampling | Sample Collection (STP inlet, STP outlet) | 2 | 960 | 3 | 5760 |
| | | | Additional Grab Sampling (BOD) | 2 | 440 | 3 | 2640 |
| | | | BOD | 2 | 1050 | 3 | 6300 |
| | | | Suspended Solid | 2 | 180 | 3 | 1080 |
| | | | Resisdual chlorine | 2 | 180 | 3 | 1080 |
| | | | **Total Charges** | | | | **16860** |
| | 3 | Stack Monitoring | Sampling Charges | 1 | 9600 | 3 | 28800 |
| | | | Sampling Charges for Nox | 1 | 3500 | 3 | 10500 |
| | | | Analysis Charges for Particulate Mateer | 1 | 1050 | 3 | 3150 |
| | | | Analysis Charges for Nox | 1 | 1050 | 3 | 3150 |
| | | | HCL | 1 | 1050 | 3 | 3150 |
| | | | **Total Charges** | | | | **48750** |
| | 4 | Noise Monitoring | Noise Monitoring | 1 | **7000** | 1 | **7000** |
| | | | | | | | |
| **(B)** | 5 | Environment Audit report | Report Preparation fees | | | | **30000** |
| | 6 | Pre-Audit visit | Travelling cost | | | | |
| | | Pre-Audit visit | DA | | | | **0** |
| | 7 | Audit visit | Travelling cost | | | | |
| | 8 | Audit visit | DA | | | | |
| | | | | | | | **0** |
| | | **TOTAL** | | | | | **171760** |
| | | **18% GST** | | | | | **30916.8** |
| | | **GRAND TOTAL** | | | | | **202676.80** |

**Quotation**

**Ref: SIT/Env/Quotation/2023-24/005** Date: 08/07/2023

Subject: Quotation for Environment Audit work Year 2023-2024

**To,**
**M/s. SRF Limited,**
**Plot No. D-II/I, GIDC Dahej**
**Ta. Vagda, Bharuch**

| (A) | Sr.No | Particular | Parameter | Samples per Visit | Charges | Per Visit | Total |
|---|---|---|---|---|---|---|---|
| | 1 | Waste Water/Effluent | **Grab Sampling** | 1 | 960 | 3 | 2880 |
| | | | Additional Grab Sampling (COD,Oil & Grease) | 1 | 880 | 3 | 2640 |
| | | | pH | 1 | 110 | 3 | 330 |
| | | | Temperature | 1 | 110 | 3 | 330 |
| | | | TSS | 1 | 180 | 3 | 540 |
| | | | Oil & Grease | 1 | 350 | 3 | 1050 |
| | | | BOD | 1 | 1050 | 3 | 3150 |
| | | | COD | 1 | 1240 | 3 | 3720 |
| | | | **Total charges** | | | | **14640** |
| | 2 | Stack Monitoring (Flue Gas) | Sampling Charges (Boiler Common stack) | 1 | 9600 | 3 | 28800 |
| | | Boiler 35, 35,60 TPH | Sampling Charges for Sox/Nox | 1 | 3500 | 3 | 10500 |
| | | Common Stack | Analysis Charges for Particulate Mateer | 1 | 1050 | 3 | 3150 |
| | | | Analysis Charges for Sox | 1 | 1050 | 3 | 3150 |
| | | | Analysis Charges for Nox | 1 | 1050 | 3 | 3150 |
| | | | HG | 1 | 1400 | 3 | 4200 |
| | | | **Total charges** | | | | **52950** |
| | 3 | Stack Monitoring (Flue Gas) | Sampling Charges (Boiler 2 stack) | 2 | 9600 | 3 | 57600 |
| | | Boiler 30 TPH | Sampling Charges for Sox/Nox | 2 | 3500 | 3 | 21000 |
| | | | Analysis Charges for Particulate Mateer | 2 | 1050 | 3 | 6300 |
| | | | Analysis Charges for Sox | 2 | 1050 | 3 | 6300 |
| | | | Analysis Charges for Nox | 2 | 1050 | 3 | 6300 |
| | | | **Total charges** | | | | **97500** |
| | 4 | DG Set | Sampling charge for DG Set (500 to 1000 KW) 4 stack | 4 | 1050 | 1 | 4200 |
| | | One Season monitoring | Sampling Charges for Sox/Nox | 4 | 3500 | 1 | 14000 |
| | | | Analysis Charges for Particulate Mateer | 4 | 1050 | 1 | 4200 |
| | | | Analysis Charges for Sox | 4 | 1050 | 1 | 4200 |
| | | | Analysis Charges for Nox | 4 | 1050 | 1 | 4200 |
| | | | **Total charges** | | | | **30800** |
| | 5 | DG Set | Sampling charge for DG Set (>1000 KW) 3 stack | 3 | 1050 | 3 | 9450 |
| | | Two Season monitoring | Sampling Charges for Sox/Nox | 3 | 3500 | 3 | 31500 |
| | | | Analysis Charges for Particulate Mateer | 3 | 1050 | 3 | 9450 |
| | | | Analysis Charges for Sox | 3 | 1050 | 3 | 9450 |
| | | | Analysis Charges for Nox | 3 | 1050 | 3 | 9450 |
| | | | **Total charges** | | | | **69300** |
| | 6 | Flue Gas | Sampling charge 8 stack | 8 | 9600 | 3 | 230400 |
| | | TCE/PCE/Plant thermic/ Fire Heater no 1&2, HFC 134a, Plant thermic fluid/Fire heaters, AHF plant heater no.1, AHF plant Drying system-1, AHF plant system Heater no.2, AHF plant drying system no-2, Difluoromethan (HFC-32)plant hot oil furnece | Sampling Charges for Sox/Nox | 3 | 3500 | 3 | 31500 |
| | | | Analysis Charges for Particulate Mateer | 3 | 1050 | 3 | 9450 |
| | | | Analysis Charges for Sox | 3 | 1050 | 3 | 9450 |
| | | | Analysis Charges for Nox | 3 | 1050 | 3 | 9450 |
| | | | **Total charges** | | | | **290250** |
| | 7 | Flue Gas (Dust Collector) | Sampling charge 1 stack | 3 | 9600 | 3 | 86400 |
| | | | Analysis Charges for Particulate Mateer | 3 | 1050 | 3 | 9450 |
| | | | **Total charges** | | | | **95850** |
| | 8 | Process Stack (HF Plant Stack) | Sampling charge | 1 | 9600 | 3 | 28800 |
| | | | HF | 1 | **1050** | 3 | 3150 |
| | | | **Total charges** | | | | **31950** |
| | 9 | Process Stack (TCF/PCE Plant Stack) | Sampling charge | 2 | 9600 | 3 | 57600 |
| | | | HCL | 1 | 1050 | 3 | 3150 |
| | | | Cl2 | 1 | 1050 | 3 | 3150 |
| | | | Total Charges | | | | **63900** |
| | 10 | Process Stack (HFC Plant Stack) | Sampling charge | 34 | 9600 | 3 | 979200 |
| | | R134a Reactor/Vessel | Sampling Charges for Sox/Nox | 1 | 3500 | 3 | 10500 |
| | | R134a Reactor/Vessel | Analysis Charges for Particulate Mateer | 1 | 1050 | 3 | 3150 |
| | | R134a Reactor/Vessel | Analysis Charges for Sox | 1 | 1050 | 3 | 3150 |
| | | R134a Reactor/Vessel | Analysis Charges for Nox | 1 | 1050 | 3 | 3150 |
| | | R134a Reactor/Vessel | HF | 13 | 1050 | 3 | 40950 |
| | | Triflouro acitic acid | HCl | 27 | 1050 | 3 | 85050 |
| | | Ethyldifluoroacetate | Cl2 | 5 | 1050 | 3 | 15750 |
| | | Ethyldifluoroacetate | Br2 | 5 | 5300 | 3 | 79500 |
| | | Ethyldifluoroacetate | CO2 | 1 | **180** | 3 | 540 |
| | | Pentafluorobenlzoic acid | | | | | |
| | | | Total Charges | | | | **1220940** |
| | 11 | Wastewater (Inlate) | Sampling Charges | 1 | **960** | 3 | 2880 |
| | | | Aditional Sampling (BOD) | 1 | 440 | 3 | 1320 |
| | | | pH | 1 | 110 | 3 | 330 |
| | | | TSS | 1 | 180 | 3 | 540 |
| | | | BOD | 1 | 1050 | 3 | 3150 |
| | | | Total Charges | | | | **8220** |
| | 12 | Biological Analysis | Sampling Charges | 1 | 1400 | 3 | 4200 |
| | | | Fical Coliform | 1 | 620 | 3 | 1860 |
| | | | Total Charges | | | | **6060** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 13 | Wastewater (Inlate) | Sampling Charges | 1 | 960 | 3 | 2880 |
| | | | Aditional Charges (Oil&Grease, BOD, COD,) | 3 | 440 | 3 | 3960 |
| | | | pH | 1 | 110 | 3 | 330 |
| | | | Temperature | 1 | 110 | 3 | 330 |
| | | | TSS | 1 | 180 | 3 | 540 |
| | | | Oil & Grease | 1 | 350 | 3 | 1050 |
| | | | Fluoride | 1 | 350 | 3 | 1050 |
| | | | Sulphide | 1 | 350 | 3 | 1050 |
| | | | Total Residual Chlorine | 1 | 180 | 3 | 540 |
| | | | Ammonical Nitrogen | 1 | 1050 | 3 | 3150 |
| | | | Total Kjendhal Nitrogen | 1 | 620 | 3 | 1860 |
| | | | Nitrate Nitrogen | 1 | 350 | 3 | 1050 |
| | | | BOD | 1 | 1050 | 3 | 3150 |
| | | | COD | 1 | 620 | 3 | 1860 |
| | | | Total Charges | | | | **22800** |
| | 14 | Sludge | Sampling Charges | 30 | 1800 | 3 | 162000 |
| | | | pH | 30 | 175 | 3 | 15750 |
| | | | Moisture Contant | 30 | 175 | 3 | 15750 |
| | | | Total Alkalinity | 30 | 180 | 3 | 16200 |
| | | | Chloride | 30 | 270 | 3 | 24300 |
| | | | Total Charges | | | | **234000** |
| | 15 | Noise Level sample | Day Time | 1 | 7000 | 3 | 21000 |
| | | | Night Time | | | | |
| | | | Total Charges | | | | **21000** |
| | 16 | Sewage Treatment Plant (Inlate and Outlate) | Sampling Charge | 2 | 1800 | 3 | 10800 |
| | | | Aditional Charges (BOD) | 2 | 880 | 3 | 5280 |
| | | | pH | 2 | 175 | 3 | 1050 |
| | | | TSS | 2 | 180 | 3 | 1080 |
| | | | Fecal Coliform | 2 | 620 | 3 | 3720 |
| | | | BOD | 2 | 1050 | 3 | 6300 |
| | | | Total Charges | | | | **28230** |
| | | | | | | | |
| | 17 | Environment Audit report | Preparation fees | 2 | 25000 | 1 | 50000 |
| | | Pre-Audit visit | Travelling cost | | | | |
| | | Pre-Audit visit | DA (4 Person) | 1 | 520 | 4 | 2080 |
| | | Audit visit | Travelling cost | | | | |
| | | Audit visit | DA (4 Person) | 3 | 520 | 4 | 6240 |
| | **Total** | | | | | | 2346710 |
| | **GST 18%** | | | | | | 422407.8 |
| | **GRAND TOTAL** | | | | | | **2769117.8** |

This Budget is Tentetive cost, Actual bill based on field and Analysis costs

1 During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.

2 It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.

3 The sample and data collections will be made by our college Four times in a year.

4 Site plan, ETP layout and stack layout to be provided by you to include in the reports.

5 Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.

6 We shall prepare final environmental audit reports twise in a year and submit to you in five presentable copies

7 Traveling cost not included in Quotation of 2023-24, So, Traveling facility will arrange by Industry, OR Encase in the same day

1 1. The Environment Audit payment shall be chargedafter as per visit to visit

2 The above payments are requested by DD/ Cheque drawn in favour of “Swarrnim Institute of Technology” payable at Ahmedabad

4 We, Swarrnim Institute of Technology (Schedule-1 auditor) is a constituent institute with the Swarnim Start up and Innovation University managed by the G.P. Jain Charitable Trust. The trust is established under Mumbai Public Trust Act 1950. Our GST number is 24AABTG1259L1ZO AND PAN Number is AABTG1259L.

**Quotation**

**Ref: SIT/Env/Quotation/2023-24/005**
Subject: Quotation for Environment Audit work Year 2023-2024
**To,**
**M/s. Rallis India Ltd.,**
**Plot No: Z-110, Dahez SEZ-II**
**Tal- Vagra, Dist:- Bharuch-392130**

| (A) | Sr.No | Particular | Parameter | Parameter charges | Location | Visit | Total |
|---|---|---|---|---|---|---|---|
| | 1 | Ambient Air Monitorir | Sampling | 10500 | 3 | 3 | 94500 |
| | | | $PM_{10}$ | 1050 | 3 | 3 | 9450 |
| | | | $PM_{2.5}$ | 1800 | 3 | 3 | 16200 |
| | | | $SO_2$ | 1050 | 3 | 3 | 9450 |
| | | | $NO_X$ | 1050 | 3 | 3 | 9450 |
| | | | **Total Charges** | | | | **139050** |
| | 2 | Stack Monitoring (Flue Gas Emission) | Sampling Stack | 9600 | 3 | 3 | 86400 |
| | | | Sampling SO2/NO2 | 3500 | 3 | 3 | 31500 |
| | | Analysis Charges | Particulate Matter | 1050 | 3 | 3 | 9450 |
| | | | SO2 | 1050 | 3 | 3 | 9450 |
| | | | NOX | 1050 | 3 | 3 | 9450 |
| | | | **Total Charges** | | | | **59850** |
| | 3 | Process Gas Emision | Sampling SO2 | 3500 | 8 | 3 | 84000 |
| | | | Sampling Stack | 9600 | 8 | 3 | 230400 |
| | | | H2S | 1050 | 2 | 3 | 6300 |
| | | | HCl | 1050 | 5 | 3 | 15750 |
| | | | Cl2 | 1050 | 2 | 3 | 6300 |
| | | | NH3 | 1050 | 1 | 3 | 3150 |
| | | | SO2 | 1050 | 4 | 3 | 12600 |
| | | | **Total Charges** | | | | **358500** |
| | 4 | Wastewater (CETP Inlet & PST Outlet) | **Sampling** | 960 | 1 | 3 | 2880 |
| | | | **Additional charges (Oil & Grease, COD)** | 880 | 1 | 3 | 2640 |
| | | | pH | 110 | 1 | 3 | 330 |
| | | | Temperature | 110 | 1 | 3 | 330 |
| | | | TSS | 180 | 1 | 3 | 540 |
| | | | Oil & Grease | 350 | 1 | 3 | 1050 |
| | | | Phenolic Compound | 350 | 1 | 3 | 1050 |
| | | | Cyanide (as CN) | 620 | 1 | 3 | 1860 |
| | | | Fluoride (As F) | 350 | 1 | 3 | 1050 |
| | | | Sulphides | 350 | 1 | 3 | 1050 |
| | | | Total Residual Chlorine | 180 | 1 | 3 | 540 |
| | | | Ammonical Nitrogen | 350 | 1 | 3 | 1050 |
| | | | Total Kjendahl Nitrogen (TKN) | 620 | 1 | 3 | 1860 |
| | | | Nitrate Nitrogen | 350 | 1 | 3 | 1050 |
| | | | Biological Oxygen Demand (3 day) | 1050 | 1 | 3 | 3150 |
| | | | COD | 620 | 1 | 3 | 1860 |
| | | | Arsenic | 530 | 1 | 3 | 1590 |
| | | | Mercury | 1400 | 1 | 3 | 4200 |
| | | | Lead | 530 | 1 | 3 | 1590 |
| | | | Cadmium | 530 | 1 | 3 | 1590 |
| | | | Trivalant Chromium (Chromium Total) | 530 | 1 | 3 | 1590 |
| | | | Haxavalant Chromium | 350 | 1 | 3 | 1050 |
| | | | Copper | 530 | 1 | 3 | 1590 |
| | | | Zinc | 530 | 1 | 3 | 1590 |
| | | | Selenium | 530 | 1 | 3 | 1590 |
| | | | Nickel | 530 | 1 | 3 | 1590 |
| | | | Manganese | 530 | 1 | 3 | 1590 |
| | | | Iorn | 530 | 1 | 3 | 1590 |
| | | | Vanadium | 530 | 1 | 3 | 1590 |
| | | | **Total Charges** | | | | **45030** |
| | 5 | **Wastewater (Outlate)** | **Sampling** | 960 | 1 | 3 | 2880 |
| | | | **Additional charges (Oil & Grease, COD)** | 880 | 1 | 3 | 2640 |
| | | | pH | 110 | 1 | 3 | 330 |
| | | | Temperature | 110 | 1 | 3 | 330 |
| | | | TSS | 180 | 1 | 3 | 540 |
| | | | Oil & Grease | 350 | 1 | 3 | 1050 |
| | | | Phenolic Compound | 350 | 1 | 3 | 1050 |
| | | | Cyanide (as CN) | 620 | 1 | 3 | 1860 |
| | | | Fluoride (As F) | 350 | 1 | 3 | 1050 |
| | | | Sulphides | 350 | 1 | 3 | 1050 |
| | | | Total Residual Chlorine | 180 | 1 | 3 | 540 |
| | | | Ammonical Nitrogen | 350 | 1 | 3 | 1050 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Total Kjendahl Nitrogen (TKN) | 620 | 1 | 3 | 1860 |
| | | | Nitrate Nitrogen | 350 | 1 | 3 | 1050 |
| | | | Biological Oxygen Demand (3 day) | 1050 | 1 | 3 | 3150 |
| | | | COD | 620 | 1 | 3 | 1860 |
| | | | Arsenic | 530 | 1 | 3 | 1590 |
| | | | Mercury | 1400 | 1 | 3 | 4200 |
| | | | Lead | 530 | 1 | 3 | 1590 |
| | | | Cadmium | 530 | 1 | 3 | 1590 |
| | | | Trivalant Chromium (Chromium Total) | 530 | 1 | 3 | 1590 |
| | | | Haxavalant Chromium | 350 | 1 | 3 | 1050 |
| | | | Copper | 530 | 1 | 3 | 1590 |
| | | | Zinc | 530 | 1 | 3 | 1590 |
| | | | Selenium | 530 | 1 | 3 | 1590 |
| | | | Nickel | 530 | 1 | 3 | 1590 |
| | | | Manganese | 530 | 1 | 3 | 1590 |
| | | | Iorn | 530 | 1 | 3 | 1590 |
| | | | Vanadium | 530 | 1 | 3 | 1590 |
| | | | **Total Charges** | | | | **45030** |
| | | Sludge | Sampling Charges | 1800 | 1 | 3 | 5400 |
| | | | pH | 175 | 1 | 3 | 525 |
| | | | Moisture Contant | 175 | 1 | 3 | 525 |
| | | | Total Alkalinity | 180 | 1 | 3 | 540 |
| | | | Chloride | 270 | 1 | 3 | 810 |
| | | | **Total Charges** | | | | **7800** |
| | | Noise Level sample | Day Time | 7000 | 1 | 2 | 14000 |
| | | | Night Time | | | | |
| | | | **Total Charges** | | | | **14000** |
| **(B)** | 7 | Environment Audit report | Preparation fees | 25000 | | 2 | **50000** |
| | 8 | Pre-Audit visit | Travelling cost | | | | |
| | 9 | Pre-Audit visit | DA (4 Person) | 520 | 4 | 3 | **6240** |
| | 10 | Audit visit | Travelling cost | | | | |
| | 11 | Audit visit | DA (4 Person) | 520 | 4 | 3 | **6240** |
| **Total** | | | | | | | **745740** |
| **GST (18%)** | | | | | | | **134233.2** |
| **GRAND TOTAL** | | | | | | | **879973.2** |

**SCOPE OF WORK & GENERAL CONDITIONS:**

**This is a tentative quotation, actual bill based on Field and analysis

1. During our visit to your site/industry, if required our vehicle shall be allowed in your premised and if required one to two skilled male labor to be provided by you for our assistance.
2. It shall contain all the technical data i.e. general data, production details, water consumption and disposal, Water pollutants/ Air pollution control & measurement, Hazardous/ Solid Waste generation and disposal, noise level measurement, Probable Health hazards and remedies, fire and safety measures, disaster control and its management systems etc.
3. The sample and data collections will be made by our college Four times in a year.
4. Site plan, ETP layout and stack layout to be provided by you to include in the reports.
5. Environmental Audit Reports shall be submitted to you as per the format of the Gujarat Pollution Control Board before 31st December 2023 and 30th June 2024.
6. We shall prepare final environmental audit reports twise in a year and submit to you in five presentable copies
7. Traveling cost not included in Quotation of 2023-24, So, Traveling facility will arrange by Industry, OR Encase on same day

**Payment Terms**

1. 1. The Environment Audit payment shall be chargedafter as per visit to visit
   i) Pre Audit
   ii) 1st Audit monitoring visit charges
   iii) 2nd Audit monitoring visit charges
   iv) 3rd Audit monitoring visit charges
   v) 4th Audit monitoring visit charges
   vi)Environment Audit reports Charges
   (Env. Audit fees Rs. 40,000/-(20000 per Report) will be charged before submission of Env. Audit Report)
2. The above payments are requested by DD/ Cheque drawn in favour of "Swarrnim Institute of Technology" payable at Ahmedabad
3. We, Swarrnim Institute of Technology (Schedule-1 auditor) is a constituent institute with the Swarnim Start up and Innovation University managed by the G.P. Jain Charitable Trust. The trust is established under Mumbai Public Trust Act 1950. Our GST number is 24AABTG1259L1ZO AND PAN Number is AABTG1259L.

SRF
We always find a better way

OUR VALUES: RESPECT | INTEGRITY | NON-DISCRIMINATION | EXCELLENCE | WELL-BEING

# PURCHASE ORDER

## Supplier Detail

GYAPRASAD JAIN CHERITABLE TRUST
35, WORLD BUSINESS HOUSE OPP. PARIMAL GARDEN, ELLISBRIDGE
GJ
AHMEDABAD - 380006
Gujarat, India
() 9978955814
GSTN/ISDN : 24AABTG1259L1ZO
Gujarat (GJ)
VENDOR CODE: 39957

## Purchase Order Detail

| | |
|---|---|
| PO No | 71482 |
| Revision No | 0 |
| Revised Date | |
| Created On | 22-JAN-2024 |
| Printed On | |
| Ref Quote No | |
| Quote Date | |
| Buyer | PARMAR, Ms. MONALI |
| PO Creator | |
| Effective Start Date | 2023-12-01T00:00:00.000+05:30 |
| Effective End Date | 2024-04-30T23:59:59.000+05:30 |
| Amount Limit | 498575 |

## Bill To :

**SRF LIMITED**
Plot No.D-2/1 GIDC, Phase II, PCPIR, Village-Dahej, Tal Vagra
Bharuch - 392130
DAHEJ, Gujarat-GJ,
Ph : 02641- 289201, 289202
GSTN/ISDN : 24AAACS0206P1ZJ
Gujarat (GJ)

## Ship To:

**SRF LIMITED**
Plot No.D-2/1 GIDC, Phase II, PCPIR, Village-Dahej, Tal Vagra
Bharuch - 392130
DAHEJ, Gujarat -GJ,
Ph : 02641- 289201, 289202
GSTN/ISDN : 24AAACS0206P1ZJ
Gujarat (GJ)

| Line No | Item Name | Part Description | HSN/SAC Code | Project & Task | Delivery Date | Quantity Agreed | UOM | Unit Price INR | Amount Agreed INR | CGST | SGST | IGST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S000700020895 | MISCELLANEOUS SERVICES ,ENVIRONMENTAL AUDIT | 998346 | -- | | | NOS | 25,000.00 | | 9 | 9 | 0 |
| 2 | S010300000002 | LAB TESTING ,SAMPLE ANALYSIS SERVICE | 998346 | -- | | | NOS | 1.00 | | 9 | 9 | 0 |
| | | | | | Total | NaN | Currency | INR | 498,575.00 | | | |
| Discount: | 0 | | Freight: | 0 | | | Currency | INR | Grand Total | | 0.00 | |

**Amount in Words (INR): Zero**

## Terms & Conditions:

| | |
|---|---|
| **Special Terms:** | |
| **Price Basis:** | FOB |
| **Terms of Payment:** | MSME 100% ON 30 DAYS CREDIT ON RECEIPT |
| **Freight Terms:** | NONE |
| **Mode of Dispatch:** | |
| **Late Delivery Terms:** | As per Annexure |

Please address your ORDER ACCEPTANCE to Ms. Monali Parmar and all correspondence pertaining to this Order to MONALI.PARMAR@SRF.COM.

Material should be booked to the Ship to address specified above, until advised otherwise.

Original & duplicate tax Invoice should be sent along with the material.

**Order Acknowledgement by Supplier** | **For and on behalf of**

**RALLIS INDIA LIMITED**
**A TATA ENTERPRISE**

DSEZ-DAHEJ SEZ PLANT
RALLIS INDIA LIMITED
Plot No: Z-110, SEZ,Part II
Lakhigam, DAHEJ,
392130 DAHEJ

# PURCHASE ORDER

GSTIN Nos. Mentioned Overleaf

**P.O . No** : 4300143167
**Date** : 14.02.2024
:
**Your Ref.** :
**Date** :
**Purchase Org** : RPPE - Pesticides Purchases
**Purchase Group** : DJ2 - DAHEJ ENGG/SERV

**Vendor : 120778**
**GSTIN NO : 24AABTG1259L1ZO**
Gyaprasad Jain Cheritable Trust,
C/O Swaminarayan startup & innovati
At Post Bhoyan Rathod, Opp IFFCO
Gandhinagar, 380006, India.

**Delivery Address :**
**GSTIN NO : 24AABCR2657N2Z3**
DSEZ-DAHEJ SEZ PLANT
Plot No: Z-110, SEZ,Part II
Lakhigam, DAHEJ,
392130 DAHEJ
(Please send your Supplies / Invoice here)

**Billing Address :**
**GSTIN NO : 24AABCR2657N2Z3**
DSEZ-DAHEJ SEZ PLANT
RALLIS INDIA LIMITED
Plot No: Z-110, SEZ,Part II
Lakhigam, DAHEJ,
392130 DAHEJ
(Please send your Commercial Invoice here )

Dear Sirs ,
Kindly arrange to supply the following material , as per Specifications attached in annexure and terms & Conditions indicated herein & on the reverse, to the address specified above . Please ensure the P.O. No. is mentioned on your bills/challans.

| No. | Material Code / Material Description | Unit | Quantity | Currency / Price/Unit | GST Rate (%) / GST Val (Rs) | Value (Rs.) |
|---|---|---|---|---|---|---|
| 1 | Environment Audit for Apr-23 to Mar-24 /<br>PR No.: 0010216119<br>The item covers the following services<br>Item Line 10 - Environment Audit for Apr-23 to Mar-24<br>1 EA 745,740.00 INR<br>Environment Audit for April-2023 to March-2024. As per Guidance by GPCB.<br>(Specification as attached) | EA | 1.00 | INR 745,740.00 PER 1 EA | CGST/SGST 0.00 / 0.00 %<br>0.00 Rs | 745,740.00 |

Value In Words :
Rupees Seven Lakh Forty Five Thousand Seven Hundred Forty Only

Total Rs. 745,740.00

Delivery Schedule:
00010 31/03/2024 - 1.000

Payment Terms : FULL PAYMENT WITHIN 7 DAYS OF SUPPLY

Delivery Terms : FREE DELIVERY TO OUR FACTORY

**For RALLIS INDIA LIMITED** **Document is system generated signatures not required**

Authorised Signatory

If the Party(ies) transacting with Rallis India Limited is not a related party,then it Confirms that the purpose and effect of this transaction is not to benefit (Directly or Indirectly) to any of the related party(ies) of Rallis India Limited.This is required to ensure compliance with the new requirements under the SEBI Listing Obligations and Disclosure Requirements Regulations.List of Related Parties of Rallis India Limited are available at www.rallisrplist.com

# WORK ORDER

DETOX INDIA
operated by VEOLIA

**Environment Audit and report charges**

| | | | |
|---|---|---|---|
| Supplier Code | : 40000990 | **WO No.** | **: 4900004933** |
| Supplier Name | : Gyaprasad Jain Cheritable Trust | Date | : Feb 23, 2024 |
| Address | : C/O Swarrinm Institute of Technology 35,,World Business House, | Currency | : INR |
| | | Purchasing Group | : P02 |
| City | : Ahmedabad | Plant / Project Name & No. | : 3004 / DIPL - Dahej |
| Pin Code | : 380006 | PR Number | PR Date |
| GST Number | : 24AABTG1259L1ZO | 1500005389 | 31.01.2024 |
| PAN Number | : AABTG1259L | | |
| Contact Person | : Dr. Savan | | |
| Contact No. | : 9016931688 | | |
| Email ID | : drsavan.env@swarrnim.edu.in | | |

| | | | |
|---|---|---|---|
| **Invoice Address** | **: Detox India Pvt. Ltd.** | **Delivery Address** | **: Detox India Pvt. Ltd.** |
| Address | : Plot No. D-2/CH/135 GIDC Dahej II Industrial Est. Tal. Vagra | Address | : Plot No. D-2/CH/135 GIDC Dahej II Industrial Est. Tal. Vagra |
| City | : Dist. Bharuch | City | : Dist. Bharuch |
| Pin Code | : 392130 | Pin Code | : 392130 |
| GST Number | : 24AAICA8402F1Z0 | Contact Person | : Dr. Savan |
| P/ Number | : AAICA8402F | Contact No. | : 9016931688 |
| Quotation Number | : EMAIL | Quotation Date | : 29.01.2024 |

For GPCB Audit

| S.No | Material/Service No. | Description | HSN/SAC | UOM | Qty | Unit Rate | Total Amount | Tax Type | Tax Rate | Tax Value |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Env. Audit report charges | 998346 | AU | 1.000 | 25,000.00 | 25,000.00 | CGST<br>SGST | 9.00%<br>9.00% | 2250.00<br>2250.00 |
| 1.1 | 1200000 | Consultancy Charges | 998346 | EA | 1.000 | 25,000.00 | 25,000.00 | | | |
| 2 | | Sampling and Analysis charges | 998346 | AU | 1.000 | 96,170.00 | 96,170.00 | CGST<br>SGST | 9.00%<br>9.00% | 8655.30<br>8655.30 |
| 2.1 | 1200098 | Ambient Air Quality Monitoring | 998346 | ONE | 6.000 | 8,450.00 | 50,700.00 | | | |
| 2.2 | 1200104 | Noise Monitoring | 998346 | ONE | 1.000 | 7,000.00 | 7,000.00 | | | |
| 2.3 | 1600071 | Analysis Of Stack-Dg Stack | 998346 | EA | 2.000 | 16,250.00 | 32,500.00 | | | |
| 2.4 | 1200105 | Waste water Quality Monitoring (ETP) | 998346 | ONE | 2.000 | 2,985.00 | 5,970.00 | | | |

Note:- Travel, stay and food extra charges to be borne by Detox India as per actual bill.

| | |
|---|---|
| Sub Total | 1,21,170.00 |
| Less Discount | 0.00 |
| Packing & Forwarding | 0.00 |
| Freight | 0.00 |
| Compensation cess | 0.00 |
| Net Amount | 1,21,170.00 |
| Total CGST | 10,905.30 |
| Total SGST | 10,905.30 |
| Total IGST | 0.00 |
| Total TCS value | 0.00 |

# WORK ORDER

DETOX INDIA
operated by VEOLIA

**Environment Audit and report charges**

| | | | |
|---|---|---|---|
| **Total value in Words : One Lakh Forty Two Thousand Nine Hundred Eighty Rupees Sixty Paise Only** | | **Total PO value** | **1,42,980.60** |
| **GENERAL CONDITIONS OF CONTRACT (GCC) - AS ATTACHED** | | | |
| **SPECIAL CONDITIONS OF CONTRACT (SCC)** | | | |
| Price Basis | NA | | |
| Packing / Freight / Insurance | NA | | |
| Payment Terms | 100% advance against Proforma Invoice<br>Before report submission and after Audit completion | | |
| Completion Period | 26.02.2024 | | |
| Bank Guarantee | NA | | |
| Warranty / Guarantee | NA | | |
| Validity of Work Order | NA | | |
| Erection & Commissioning | NA | | |
| Important Note | Tax Invoice / Challan raised by Contractor must contain WO No. and GST No. Invoice will not be processed in absence of these details. Original Invoice must be sent at site. | | |
| C r Conditions | All disputes shall be settled under the jurisdiction of Surat. | | |
| PR Requested By : EHS DAHEJ | WO Prepared By : REVATHI NARAYANAN | Approved By : Anil Gahlyan | |
| | | **Detox India Pvt. Ltd.**<br>Director / Authorized signatory | |


**Detox India Pvt. Ltd.**

Corporate Office Address

Detox House,Opp. Gujarat Samachar Press

Udhna Dharwaja Ring road,

SURAT - 395002 GUJ. INDIA

CIN:-U90000GJ2010PTC060122

Tel.: +91 261 - 2351248/2346181

Email : procurement@detoxindia.com

# The Green Environment Services Co-op. Society Ltd.

(Common Effluent Treatment Plant, MEE, Spray Dryer & FCR)

## WORK ORDER

Ref: GESCSL/PUR/GJCT/WO/2023-24/1151

Date: 28/08/2023

M/s. Gyaprasad Jain Cheritable Trust
Office no. 35, World business house,
3rd floor, opp. Parimal garden,
Ellisbridge, Ahmedabad 380006.
Phone : 079 40021021 / 40327662
Email: gpjaintrust@gmail.com
GST no. : 24AABTG1259L1ZO

SUB :- Quotation of "Environmental Audit" Work for the year 2023-24.
REF. No. PROPOSAL/2023-24/SIT/06, Dated 16th August 2023 (by mail).

Dear Sir/Madam,

In connection to the above mentioned sub. & ref., we accept your proposal as per below cost bifurcation.

| Sr. No. | Description | Amount Rs. |
|---|---|---|
| 01. | Charges for Environmental Audit Work ( 4 Visit ) | 297265.00 |
| 02. | Charges for Environmental Audit Report Preparation | 50000.00 |
| | Environment Audit charges Total ( no. of visit = 04 ) | 347265.00 |
| | GST 18% (May vary as per regulations of GOI) | 62507.70 |
| | Environment Audit Total charges ( For period April-23 to March-24 ) | 409772.70 |

1. SCOPE OF WORK

To carry out Environment Audit as per the guidelines of GPCB.

2. Monitoring (Sample Collection and Analysis)

This includes sample Collection of effluent samples, hazardous waste analysis. Bore well water. ( as per offer no. SIT/ENV. Audit/06 - dt. 16-08-23 )

3. Payment Terms for Professional Charges:-

- 20 % advance after first Monitoring, Payment made by actual Sampling & Visits.
- GST Taxes as applicable
- Environment Audit Fees will be charged twice at the time of submission of Environment Audit reports.
- Annexure no. III by mail Reimbursements will be as per your quotation offer no. SIT/ENV. Audit/06 dt. 16-08-23.

4. Submission of Audit Report:-

- Half yearly ( April-2023 to Sept 2023, & Oct-2023 to March-2024) Environment Audit Report to Submitted as early as possible as per GPCB guidelines.

Thanking You,
Yours Faithfully

For and on behalf of
G. E. S. C. S. L.

Authorized Signatory

For and on behalf of
Gyaprasad Jain Cheritable Trust

Team coordinator,
Environment Audit Cell.
Authorized Signatory



Regd. Office & CETP Site : Plot No. 244-251, Phase II-GIDC Estate, Vatva, Ahmedabad - 382 445
Tele : (079) 25892283, 25832449, Mob. : 98250 18947, 75730 17676, 75730 27676
E-mail : greenpurchase@hotmail.com, info@gescsl.com Web Site : www.gescsl.com
SLF Site : Survey No. 89 - 90 - 91, Village : Vinzol, Ahmedabad. Phone : 92278 18213

M/S Gujarat Ambuja Exports Ltd.
Plot No. 1, (Bio Chemical Division)
Vrindavan Road, Dalpur – 383120.
Taluka: Prantij, Dist: Sabarkantha.

# ENVIRONMENTAL AUDIT REPORT
FOR THE PERIOD
April 2023 to March 2024
Prepared by:

Environmental Scheduler I, Audit Cell
Environmental and Chemical Engineering Department
Swarrnim Institute of Technology
Swarrnim Startup and Innovation University,
Gandhinagar.

# PREFACE

Consciousness at National Level is increasing day by day in the industrial sector with the focus on **Environment** and **Sustainable Development.** A successful Environment Management Policy requires a constant and round the clock effort to analyze and monitor the various operations and processes within the industry premises so that it does not pollute the air, water, land, soil or environment further and at the same time transmit this information to the inspecting authority**.** Such an exercise to generate necessary information about analysis of various industrial emissions including air, water, noise, solid waste etc., treatment methods, abatement techniques, up gradations done to improve the system from time to time and the compilation of annual estimates is termed as Environmental Audit.

Environmental Audit on the other hand refers to verification and assessment of environmental measures in an organization.

In a broader sense, Environmental Audit is defined as a managerial tool which includes the activity of systematic periodic and documented objective evaluation of how the organization, management and equipments perform their environmental activities so that it facilitates the management control our environment practice and assessing compliance with company policies which would include meeting regulatory requirements.

In accordance with the directives given in Special Civil Application 163 / 95 in SCA 770 / 95 by the honorable high Court on 20 /12 /96 and MCA 326 of 1997 in SCA 770 /95 0n 13/03/97 the scheme of Environmental Audit has been introduced.

Keeping in view this enforcement compliance and directives of the honorable high court a sincere attempt is made by us to carry out the Environmental Audit of C**.** A fair and unbiased report is hereby presented to the Gujarat Pollution Control Board. Any error or lacuna in the same may be due to oversight and is unintentional. All efforts shall be made to cover up the shortcomings and remove the errors in subsequent reports.

Thus, the information collected by the Environmental Audit team of Swarrnim Startup and Innovation University regarding the industry and analysis of its various samples has proved to be useful in judging the adequacy and efficacy of the Environmental Control Measures and we hope this report shall enable our client to fulfill their commitment for continuous improvement of Environment.

# Contents


| Sr. No. | Topic |
|---|---|
| ❖ | Project Team |
| ❖ | Objectives of Environment audit and Operational Briefing |
| ❖ | Executive Summary |
| A. | General |
| B. | Product Details |
| C. | Water |
| D. | Air |
| E. | Hazardous (Solid) Waste |
| F. | Site Plan |
| G. | Resource Recovery |
| H. | Health |
| I. | Accidents |
| J. | Safety Measures |
| K. | Remedial Measures |
| L. | Water Cess |
| M. | Consultant's Detail |
| ❖ | Annexures |
| ❖ | Certificate for Sampling and Analysis |
| ❖ | Adequacy Certificate of Environmental Management System |

# List of Annexure

| Sr. No. | Details |
|---|---|
| A 1 | Introduction to Industry |
| A 2 | Details of Electric Consumption |
| A 3 | List of Directors |
| B 1 | Product Details |
| B 2 | By-product Details |
| B 3 | Date of commencement of production |
| B 4 | Details of Raw Materials |
| B 5 | Types of Manufacturing Process |
| B 6 | Manufacturing Process with Flow Diagram |
| C 1 | Quantity of water consume |
| C 2 | Quantity of waste water generated |
| C 3 | Particulars of Effluent Treatment Plant |
| C 4 | Quality of Trade Effluent |
| C 5 | Details About operators/Chemist Associated with ETP |
| C 6 | Details Regarding Water Consent |
| D 1 | Details of Flue Gas Stack |
| D 2 | Details of Fuel Consumption |
| D 3 | Details of Process Stack |
| D 4 | Details of Flue Gas & Process Stack Analysis Report |
| D 5 | Details of Ambient Air Monitoring |
| D 6 | Details Regarding Air Consent |
| D 7 | Details of air pollution measures |
| E 1 | Details of Solid / Hazardous Waste |
| E 2 | Details Regarding Monthly Generation of Hazardous / Solid Waste |
| E 3 | Analysis of Hazardous / Solid Waste |
| E 4 | Details Regarding Hazardous Waste Authorization |
| F 1 | Site Plan |
| G 1 | Resource Recovery |
| H 1 | Periodical medical examination & Health Records |
| I 1 | Accidents |
| J 1 | Disaster Management Plan |
| J 2 | On site / off site emergency plan |
| K 1 | Noise Monitoring |
| K 2 | Details related to Odor |
| K 3 | Details in respect of cases / complaints under water act 1974, Air act 1981, & the EPA 1986 |
| K 4 | Compliance Report |

| | |
|---|---|
| K 5 | Details regarding incidents of spillages, leakages etc. and remedial measures thereof |
| K 6 | Insurance policy details under PLI policy |
| L 1 | Details related to water cess |
| ❖ | Certificate for sampling and Analysis |
| ❖ | Adequacy Certificate of Environmental Management System |

## Objectives of Environment audit and Operational Briefing

### Aim of the Audit scheme:

It is well known fact that environmental audit scheme is a management tool involving a systematic, objective, documental and periodic evaluation of environmental management systems with specific aim of

1. Waste reduction/prevention
2. Assessing compliance with regulatory requirements
3. Facilitating control of environmental practices by a company's management
4. Placing environmental information in the public domain.

### Objectives of environmental auditing:

(1) To check the adequacy and efficacy of the Effluent treatment plant, gaseous emissions, solid waste, ambient air, noise, health and safety systems of the factory.
(2) To check whether the industry meets with all the regulatory norms set by the state regulatory authority that is GPCB regarding environmental pollution control.
(3) To check various records of ETP.
(4) To check various records of Environmental Management System.

### Operational Briefings:

- The team of experts from Swarrnim Stratup and Innovation University did the Environmental Audit work of the Unit by making several visits to the unit.
- In their three visits during the audit period they carried out brief survey, inspection ambient air quality, Process stacks to dryer and solid waste management system monitoring.
- Visual observations of the units and machinery were also checked out periodically.
- Most representative grab samples of the effluent, ambient air, process and process stack, noise and solid waste were taken, analyzed and cited in this report.
- Technical information regarding the ETP and other Environmental Management Systems was sought from the industry.
- The findings in this report are entirely based on the data furnished by the industry and data collected by the audit team during the audit visits conducted in the client's unit presuming that all the EMS and manufacturing operations were at normal conditions at the time of visits.
- Thus the information collected by the Environmental Audit team of Swarrnim University regarding the industry and analysis of its various samples has proved to be useful in judging the adequacy and efficacy of the Environmental Control Measures

## EXECUTIVE SUMMARY

Honorable High Court of Gujarat's order for the Environmental Audit Scheme dated 20th December 1996 and modified vide it's order dated 13th march 1997, **Swarrnim University** is nominated to carry out **Environmental Audit** work for the industries falling under Schedule-I industries.

**Introduction:**

**Introduction:**

1.1 Description for Industry The Company has its registered and Head Office at Gujarat Ambuja Exports Limted Opp. Sindhubavan, Sindhubhavan Road, Bodakdev, Ahmedabad-380059. The works of the company is located at Plot No. 1, (Bio Chemical Division), Vrindavan Road, Dalpur – 383120. Taluka: Prantij, Dist: Sabarkantha. The company is engaged in the manufacturing of ……...

The installed capacities of products are as follows:

| MONTH | STARCH | GLUCOSE | DEXTROSE | DAH | MALTO | SORBITOL 70 % | TOTAL |
|---|---|---|---|---|---|---|---|
| | MT. | MT. | MT. | | MT. | MT. | MT. |
| Apr-23 | 4919.500 | 1524.820 | 630.200 | 230.000 | 359.050 | 1580.000 | 9243.570 |
| May-23 | 4515.000 | 1447.540 | 519.850 | 173.500 | 339.600 | 1520.000 | 8515.490 |
| Jun-23 | 4767.500 | 1431.390 | 451.750 | 214.000 | 314.075 | 1540.000 | 8718.715 |
| Jul-23 | 4820.000 | 1688.150 | 506.450 | 244.500 | 355.100 | 1950.000 | 9564.200 |
| Aug-23 | 4858.250 | 1577.930 | 543.300 | 228.000 | 350.325 | 1910.000 | 9467.805 |
| Sep-23 | 4741.500 | 1332.900 | 538.450 | 224.500 | 310.400 | 1390.000 | 8537.750 |
| Oct-23 | 5225.500 | 1830.810 | 577.750 | 232.000 | 363.700 | 1025.000 | 9254.760 |
| Nov-23 | 4901.500 | 1568.790 | 588.775 | 223.000 | 338.075 | 1590.000 | 9210.140 |
| Dec-23 | 5044.000 | 1654.100 | 692.975 | 231.500 | 309.000 | 785.000 | 8716.575 |
| Jan-24 | 5002.500 | 1691.410 | 751.550 | 251.000 | 331.325 | 1685.000 | 9712.785 |
| Feb-24 | 3732.500 | 1279.470 | 611.200 | 214.500 | 312.375 | 1060.000 | 7210.045 |
| Mar-24 | 4296.250 | 1543.170 | 538.650 | 222.000 | 282.800 | 1080.000 | 7962.870 |
| **TOTAL :** | **43792.750** | **14056.43** | **5049.50** | **2001.00** | **3039.32** | **13290.00** | **81229.00** |

1.2 The products of the company are enlisted under Schedule - I of the "Scheme for Environmental Audit of Industries Manufacturing Specified Products" in accordance with the judgment of the Honorable High Court of Gujarat dated 13/03/97 in sp. Civil Application 163/95 in SCA 770/95.

1.3 The company has assigned the work of preparing the annual environmental audit report for the period from Jan'2013 to Dec'2013 to Swarrnim University a Schedule – I environmental auditor recognized by Gujarat Pollution Control Board (GPCB), under the said scheme.

1.4 The report highlights the adequacy and efficacy of environmental management system in light of various statutory requirements under water act, air act, environmental protection act and inspection, monitoring carried out by the audit team.

1.5 The audit report is being submitted in accordance with the format prescribed by GPCB along with the requisite processing fees to Gujarat Pollution Control Board.

**Observations and Recommendations**

- CETP must reduce the solid waste generated from ETP and meet the guideline given by GPCB.
- The company is maintaining data related to environment management system.
- Adequate facility like ladder, platform etc is provided to ensure safety while sampling at different places.
- Green belt around the company is also desirable.
- Various personal protective equipments to ensure the safety are provided to employees and workers. Awareness programmed to ensure regular use of such equipments is highly desirable.
- Labor safety must be desirable while Labor on work platform.
- Row material and Packaging area must be protecting for the Dust particle.
- Maintain the ETP datasheet hard and soft copy.

Gujarat Pollution Control Board
Paryavaran Bhavan, Sector - 10 A,
Gandhinagar - 382 043.
Phone: 22756, 22096, 22096
Fax: (02712) 22784

**Environmental Audit**
(Period from April 2022 to December 2023)

## (A) GENERAL

| | | | |
|---|---|---|---|
| (1) | Name of the Industry | : | M/S Gujarat Ambuja Exports Limited |
| (2) | Location | : | Plot No. 1, (Bio Chemical Division)<br>Vrindavan Road, Dalpur – 383120.<br>Taluka: Prantij,<br>Dist: Sabarkantha. |
| (3) | Registered Office Address | : | Gujarat Ambuja Exports Limted Opp. Sindhubavan, Sindhubhavan Road, Bodakdev, Ahmedabad-380059 |
| (4) | Month & Year of establishment | : | As per **Annexure A 1** |
| (5) | (a) No. of workers employed | : | 476 |
| | (b) Male / Female. | : | Male: 474 / Female : 02 |
| (6) | (a) No. of electrical connection with service numbers | : | As per **Annexure – A 2** |
| | (b) Total connected load | : | As per **Annexure – A 2** |
| | (c) Electric/Fuel consumption per Tone of product manufactured. | : | As per **Annexure – A 2** |
| | (d) Percentage enhancement in energy | : | As per **Annexure – A 2** |
| | (e) Savings as compared to previous year | : | As per **Annexure – A 2** |
| (7) | No. of DG Sets & their capacity | : | As per **Annexure – A 2** |
| (8) | Name & residential address of all directors or partners. | : | As per **Annexure – A 3** |
| (9) | Telephone Nos.; (Residential & Industrial) | : | As per **Annexure – A 3** |
| | Fax No.: | : | As per **Annexure – A 3** |
| | E-Mail of Industry: | : | bhupesh@ambujagroup.com |

| | | | |
|---|---|---|---|
| | E-Mail of Partners or directors: | : | As per **Annexure – A 3** |
| (10) | No. of the Shifts & Timings | : | As per **Annexure – A 1** |
| (11) | Name and address of the in-charge of Environment / Safety Division / Cell / Unit. | : | Mr. Bhupesh Bhai<br>Address: M/s. Gujarat Ambuja Exports Ltd.<br>Plot No:1 Biochemical Division ,Vrindavan road, Dalpur Ta: Prantij, Dist: Sabarkantha. Gujarat Pin Code:383120 |
| (12) | No. of days during which production activities were in operation during the period covered | : | As per **Annexure – A 1** |
| (13) | Has the industry obtained ISO 9000/ISO 14000/OSHAS 18000 / Any other EM accreditation/Certificate or recognition? | : | Yes, As per **Annexure – A 1** |
| (14) | Whether the industry has adopted cleaner production/cleaner technology/CDM? | : | No |
| (B) | **PRODUCT DETAILS** | | |
| (1) | Name of products & capacity with yield / purity per day. | : | As per **Annexure – B 1** |
| (2) | Name of all by products and its quantity per day. | : | As per **Annexure – B 2** |
| (3) | Date of commencement of production for each product.<br>Whether production is as per consented quantity: | : | As per **Annexure – B 3** |
| (4) | All raw materials required per kg of the products. | : | As per **Annexure – B 4** |
| (5) | Whether the manufacturing process is continuous or batch | : | Continuous<br>As per **Annexure – B 5** |

| | | | |
|---|---|---|---|
| | wise. | | |
| | Indicate the batch capacity | : | NA |
| | If the process is batch wise operation, no. of batches / month along with the duration of the completion of each batch | : | NA |
| (6) | Detailed manufacturing process with schematic flow diagram | : | As per **Annexure – B 6** |
| | List of unit operations & processes & with all chemical reactions, along with the time required (in hrs.) for completion of each unit operation / process and the total time for completion the entire batch | : | As per **Annexure – B 6** |
| | Mass balance in respect of the quantity of water, input of raw materials and waste water generation. | : | As per **Annexure – B 6** |
| (C) | **WATER** | | |
| (1) | The quantity of water consumed per day as well as per tone of product manufactured | : | As per **Annexure – C 1** |
| | | : | |
| (2) | The quantity of wastewater (trade waste) generated per tone of each product per day, as well as per batch over last three years | : | As per **Annexure – C 2** |
| (3) | The particulars of effluent treatment i.e.: | | |
| | (i) Name & size of the unit | : | As per **Annexure – C 3** |
| | (ii) The Capacity of the ETP | : | As per **Annexure – C 3** |

| | | | |
|---|---|---|---|
| | (iii) Flow diagram & Hydraulic Diagram of ETP | : | As per **Annexure – C 3** |
| | (iv) Whether lighting arrangement around ETP is provided. | : | As per **Annexure – C 3** |
| | (v) Whether the separate energy meter for effluent treatment plant area is installed. If yes, reading of the meter for consumption every month | : | As per **Annexure – C 3** |
| | (vi) Whether flow meter is provided at the inlet & outlet of ETP.<br>Please indicate the type of the flow meter. | : | As per **Annexure – C 3** |
| (4) | The method of disposal of final treated effluent & the final point of disposal of effluent (please attach sketch) | : | As per **Annexure – C 3** |
| (5) | The quality of trade effluent at the inlet and outlet of ETP and at various stages of treatment. | : | As per **Annexure – C 4** |
| (6) | The quantity and quality of sewage & its method of treatment and disposal. (Attach separate sheets)<br>a) As per norms<br>b) Total Pollution load* | : | |
| (7) | The open area available for disposal of the effluent. | : | **237730.77 $m^2$** |
| (8) | Whether the quality of treated effluent meets the specified norms. If no; the extent of deviation and reasons thereof. | : | As per **Annexure X A** |

| | | | |
|---|---|---|---|
| (9) | Improvement in effluent quality and quantity since previous environmental audit based on performance evaluation of effluent management systems.<br>If yes, provide details (Attach separate sheets) | : | No significant change as compared to last year. |
| (10) | Retrofitting undertaken to improve performance of ETP.<br>If yes, provide details. | : | None |
| (11) | Major problems encountered during operation of effluent treatment facilities, if any and reasons thereof. | : | No problems were encountered during the operation of ETP |
| (12) | The details about the operators / chemist responsible for operation & maintenance of effluent treatment plant: | : | As per **Annexure – C 5** |
| | (i) Name of the operators / employees. | : | As per **Annexure – C 5** |
| | (ii) Qualification and experience of each operator / employee whether trained in such operation or not | : | As per **Annexure – C 5** |
| | (iii) Salary of operators / employee. | : | As per **Annexure – C 5** |
| (13) | The current status of consent under the Water Act -1974. | : | As per **Annexure – C 6** |
| (D) | **AIR** | | |
| (1) | No. of the flue gas stacks, their height (from ground level), nature & consumption of fuel. | : | As per **Annexure – D 1, D 2** |
| (2) | The details pertaining to the Stack Monitoring facilities. | : | As per **Annexure – D 1, D 2** |

| | | | |
|---|---|---|---|
| (3) | Number of process stacks, their height (from ground level), source, expected pollutants & the details pertaining to the provision of Stack Monitoring Facilities. | : | As per **Annexure – D 3** |
| (4) | The quality of emission from each flue gas stack & the process stack & the extent of deviation from them. | : | As per **Annexure – D 4** |
| (5) | The ambient air quality within the factory premises, along with the number of ambient air quality - monitoring stations outside the industry. | : | As per **Annexure – D 5** |
| (6) | The status of consent under the Air Act -1981. | : | As per **Annexure – D 6** |
| (7) | The details of air pollution control measures for all process & flue gas stacks. | : | As per **Annexure – D 7** |
| (8) | Improvement in emission quality since previous environmental audit based on performance evaluation of air pollution management system.<br>If yes, provide details. (Attach separate sheets) | | NA |
| (9) | Retrofitting undertaken to improve emission quality. If yes, provide details. | | NA |
| (10) | Major problems encountered during operation of control device, If any and reasons thereof. | | NA |

| | | | |
|---|---|---|---|
| | * Whether production is as per consented quantity.<br>NOTE: Total pollution load each for air, water and hazardous waste should have mentioned along with the quality of effluent, emission or solid waste as the case may be. Whether measures taken for reduction of pollution load | | |
| (E) | **HAZARDOUS (SOLID) WASTE** | | |
| (1) | The quantity, sources & composition of hazardous waste / solid waste from each process / sources over the last three years (The total generation of the sludge per tone of product manufactured). | : | As per **Annexure – E 1, E 3** |
| | Whether it is as per the consented quantity | | As per **Annexure – E 1** |
| (2) | (a) The method of storage, treatment & disposal of hazardous / solid waste.<br>The details should include area of storage and disposal and whether storage and disposal system is covered made impervious (pucca). | : | As per **Annexure – E 2** |
| | The quantity of Hazardous waste sent to TSDF. | | As per **Annexure – E 2** |
| | Please also indicate how the quantity of hazardous/solid shall be reduced in next three months | | NA |
| | b) The data/information about leachate generation, quantity & characteristics and treatment facility. | | As per **Annexure – E 2** |
| (3) | The status of authorization under the EPA 86 for solid waste. | : | As per **Annexure – E 4** |
| (4) | Plan, if any to reduce hazardous waste generation or its recycling. | | - |

| | | | |
|---|---|---|---|
| **(F)** | **Site plan** | | |
| (1) | The **site plan** showing the location of Effluent Treatment Plant, final point of disposal of effluent, sampling point, drainage line, stacks, solid waste storage, disposal area & green belt (its width) | : | As per **Annexure – F 1** |
| **(G)** | **Resource Recovery** | | |
| (1) | (i) The details regarding **resource recovery** including treated effluent for recycle/reuse from environmental pollution control system including effluent treatment plant. | : | As per **Annexure – G 1** |
| | (ii) The details regarding resource recovery / by product recovery from manufacturing process by using cleaner production technology. | : | As per **Annexure – G 1** |
| (H) | **HEALTH** | | |
| (1) | Whether any hazard is involved in the manufacturing or from the work environment. If Yes; the details thereof | : | As per **Annexure – H 1** |
| (2) | Whether industry has pre employment & periodical medical examination facilities. If Yes; the details thereof | : | As per **Annexure – H 1** |
| (3) | Whether health records are maintained regarding adverse effect on the health of workers. If Yes; details thereof. | : | As per **Annexure – H 1** |

<table>
<tr><td>(4)</td><td>Whether industry has appointed a factory medical officer.<br>IF Yes; full time or part time.<br>Include the details about the name, address and qualification of the factory medical officer.</td><td>:</td><td>Yes, health records were maintained regarding adverse effects on the health of workers.<br>Name : Dr. Hasmukh Soni<br>Address: 1, sugam park, nava road, mahavir nagar, himatnagar.</td></tr>
<tr><td>(5)</td><td>Details of medical facilities available. Please tick (√) correct column:</td><td>:</td><td><table><tr><td>Dispensary</td><td></td></tr><tr><td>Ambulance</td><td></td></tr><tr><td>Hospital</td><td></td></tr><tr><td>First Aid Box</td><td></td></tr></table></td></tr>
<tr><td>(6)</td><td>Whether sanitary facilities like water closets, urinals, bathroom are provided and are satisfactory.</td><td></td><td>Yes</td></tr>
<tr><td>(I)</td><td>Accidents</td><td></td><td></td></tr>
<tr><td>(1)</td><td>The details of accidents in the factory & remedial measure taken.</td><td>:</td><td>As per Annexure – I 1</td></tr>
<tr><td>(J)</td><td>SAFETY MEASURES</td><td></td><td></td></tr>
<tr><td>(1)</td><td>General Environmental of the factory: Please tick (√) the appropriate column.</td><td></td><td></td></tr>
<tr><td></td><td colspan="3"><table><tr><th>Particulars</th><th>Good</th><th>Fair</th><th>Poor</th></tr><tr><td>(a) House keeping</td><td></td><td>√</td><td></td></tr><tr><td>(b) Dustiness</td><td></td><td>√</td><td></td></tr><tr><td>(c) Lighting</td><td>√</td><td></td><td></td></tr><tr><td>(d) Ventilation</td><td></td><td>√</td><td></td></tr></table></td></tr>
<tr><td>(2)</td><td>Whether the following protective appliances are provided to all the persons. IF YES; HOW MANY?</td><td>:</td><td>Yes</td></tr>
</table>

| | | | |
|---|---|---|---|
| | <table><tr><th>Sr No.</th><th>Particulars</th><th>Yes / No</th><th>Numbers</th></tr><tr><td>a.</td><td>Googles</td><td>Yes</td><td>50</td></tr><tr><td>b.</td><td>Gloves</td><td>Yes</td><td>50</td></tr><tr><td>c.</td><td>Gumboot</td><td>Yes</td><td>50</td></tr><tr><td>d.</td><td>Helmet</td><td>Yes</td><td>50</td></tr><tr><td>e.</td><td>Skin cream</td><td>Yes</td><td>50</td></tr><tr><td>f.</td><td>Soap</td><td>Yes</td><td>50</td></tr><tr><td>g.</td><td>Ear plug</td><td>Yes</td><td>50</td></tr><tr><td>h.</td><td>Face masks</td><td>Yes</td><td>50</td></tr><tr><td>i.</td><td>Clothing</td><td>Yes</td><td>50</td></tr></table> | | |
| (3) | The details of facilities for disaster management / Gas leakage | : | As per **Annexure – J 1** |
| (4) | Whether on site / off site emergency plans are prepared and are being implemented / upgraded regularly; Please give details. | : | As per **Annexure – J 2** |
| (5) | Whether records of occupational hazards are maintained? | | NA |
| (6) | Preventive measures adopted to minimize occupational hazard. | | NA |
| **(K)** | **REMEDIAL MEASURES** | | |
| (1) | The details of sources; monitoring & measures taken for control of **noise pollution** in & around the industrial premises. | : | As per **Annexure – K 1** |
| (2) | The measures taken for prevention treatment & control of **odor nuisance** in & around the industrial premises. | : | As per **Annexure – K 2** |

| | | | |
|---|---|---|---|
| (3) | The details in respect of cases / **complaints** under the Water Act 74, the Air Act 81 & the EPA 86. | : | As per **Annexure – K 3** |
| (4) | The **compliance report** with respect to all the conditions of NOC/ Consent (Under all the Acts). | : | As per **Annexure – K 4** |
| (5) | Incidents of spillages, leakages etc. And remedial measures thereof. | : | As per **Annexure – K 5** |
| (6) | (a) Whether Insurance Policy obtained under **PLI Act**? | : | As per **Annexure – K 6** |
| | (b) If Yes; give details. | : | |
| (L) | WATER CESS | | |
| (1) | The details regarding payment of the **Water Cess** for the previous & current year. | : | As per **Annexure – L 1** |
| (M) | The name and address of the **consultant engaged** by the company / industry. | : | As per **Annexure – M 1** |

It is declared that all the information submitted in & with respect to this format is correct and we will be responsible for any lapse regarding incorrect or incomplete information.

| | (A) | | (B) |
|---|---|---|---|
| | **Name & Signature of the recognized person of the Industry / Organization Institute with stamp** | | **Name & signature of all the member of the audit team.** |
| | **Name** **Signature** | | **Name** **Signature** |
| | Mr. Bhupesh Rahevar | | Dr. Savan Tank |
| | | | Dr. Parwathi Pillai |
| | | | Ms. Brinda Govani |
| | | | Ms. Apeksha Brahmbhatt |

Swarnim Startup & Innovation University Gandhinagar

**Annexure – A 1**

# Introduction to Industry

# Annexure – A 1

## Introduction to Industry

| | | | |
|---|---|---|---|
| (1) | Name of the Industry | : | **M/s. Gujarat Ambuja Exports Limited** |
| (2) | Location | : | **Plot No. 1 Biochemical Division, Vrindavan Road, Dalpur Ta-Prantij<br>Dist- Sabarkantha Gujarat.<br>Pin code : 383120** |
| (3) | Registered Office Address | : | **Gujarat Ambuja Exports Ltd. Opp. Sindhubhavan, Sindhubhavan road, Bodakdev Ahmedabad-380059** |
| (4) | Month & Year of establishment | : | July,1995 |
| (5) | (a) No. of workers employed | : | 476 |
| | (b) Male / Female. | : | Male : 474 Female: 02 |
| (6) | No. of Shifts and timings | | |

| Sr. No. | Shift | Timings |
|---|---|---|
| 1 | First | 07 To 15 HRS |
| 2 | Second | 15 To 23 HRS |
| 3 | Third | 23 To 07 HRS |
| 4 | ** | ** |

(7) Details of accreditation / certification or any other recognition

| | Certificates | Issued by | Issued on | Valid up to |
|---|---|---|---|---|
| 1 | ISO 9001:2015<br>ISO 22000:2018 | Alcumous ISOQAR<br>Alcumous ISOQAR | 28/09/2021<br>22/09/2021 | 15/10/2024<br>15/10/2024 |
| 2 | ISO 14000 | ** | ** | ** |
| 3 | ISO 18000 | ** | ** | ** |

## Details of Plant working days

| Month | Working Days |
|---|---|
| April | 30 |
| May | 31 |
| June | 30 |
| July | 31 |
| August | 31 |
| September | 30 |
| October | 31 |
| November | 30 |
| December | 31 |
| January | 31 |
| February | 28 |
| March | 31 |
| Total | 365 |

**Annexure – A 2**

# Details of Electric Consumption

## Annexure – A 2

## Details of Electric connections

| Sr. No. | Service provider with service no. | Connected load |
|---|---|---|
| 1. | 33222 | 2634 KVA |

## Details of Electric consumption per ton of product manufactured

| MONTH | CPP (4.2) | BIOGAS ENGINE | TOTAL | ETP | APCM |
|---|---|---|---|---|---|
| | (BCD) | | | | |
| | KWH | | KWH | KWH | KWH |
| Apr-23 | 2881400 | 716545 | 3597945 | 64360 | 5470 |
| May-23 | 2618300 | 650359 | 3268659 | 58220 | 6130 |
| Jun-23 | 2775000 | 563879 | 3338879 | 57430 | 8700 |
| Jul-23 | 3036300 | 385048 | 3421348 | 70180 | 10620 |
| Aug-23 | 2894900 | 0 | 2894900 | 63480 | 11890 |
| Sep-23 | 2923300 | 255799 | 3179099 | 63210 | 5750 |
| Oct-23 | 2882300 | 447244 | 3329544 | 71810 | 5920 |
| Nov-23 | 2763700 | 485230 | 3248930 | 58690 | 5970 |
| Dec-23 | 2875400 | 237185 | 3112585 | 66857 | 6020 |
| Jan-24 | 3012200 | 613860 | 3626060 | 73180 | 6900 |
| Feb-24 | 2247988 | 448301 | 2696289 | 59710 | 6100 |
| Mar-24 | 2332029 | 425176 | 2757205 | 56320 | 6500 |
| **TOTAL :** | **33242817** | **5228626** | **38471443** | **763447** | **85970** |

* Standard consumption of per ton of the product:

## Comparison of Electricity consumption per ton of Product

| | April 2022 – March 2023 | April 2023 – March 2024 | % Enhancement | Savings |
|---|---|---|---|---|
| Product manufactured (Ton) | 141011.340 | | 158.51 | - |
| Electric Consumption (KWH) | 36711447 | | 4846.33 | - |
| Energy consumed per ton of product | 3131.023 | | 36835.56 | - |

## D.G Sets with their capacity

| Sr. No. | D.G Set Detail | Capacity, KWH |
|---|---|---|
| S.R.No:03110799/2526320 | Make : Cummins | 750 KVA |

**Annexure – A 3**

# List of Directors

## Annexure – A 3

## List of Directors

| Sr. No | Name of The Director | Designation | Residential Address & Telephone No. |
|---|---|---|---|
| 1 | Mr. Manish Vijaykumar Gupta | Chairman & MD | 23,24,25 kalhar Exotica Ashwamegh Co-operative So. Ltd. Sola, Ahmedabad-380060 |
| 2 | Mrs. Sulochna V Gupta | Director | 8, Pratima Society nr, Dada Sahib na pagla, Navrangpura, A'Bad-380009 |
| 3. | Mr. Sandeep N Agrawal | Whole time Director | B-302 Sankalp grace, B\H Rajput club, Bodakdev, A'Bad-380059 |
| 4. | Mr. Vishwavir Saran Das | Director | C-101, Kasturi-3 Thaltej Shilaj Road, Thaltej, Ahmedabad-380059 |
| 5. | Mr. Sandeep Singhi | Director | B-1102, Sundervan Epitome ,Opp. Star India Bazar, Satelite, Ahmedabad-280054 |
| 6 | Mr. Maitri M Mehta | Director | Shriyaj, Sterling Park, Near Sterling Hospital, Memnagar, Ahmedabad. |

Industry Telephone No.: 02772-226252
Industry Fax No.: 02772-226256
Industry E mail ID.: corn@ambujagroup.com

**Annexure – B 1**

# Product Details

## Annexure – B 1

## NAME OF PRODUCTS AND CAPACITY WITH YIELD & PURITY PER DAY

| Sr. No. | Name of Product | Installed Capacity (MT/Month) | Yield / Purity per day |
|---|---|---|---|
| 1 | Starch | 736.91 | - |
| 2 | Glucose | | - |
| 3 | Dextrose | | - |
| 4 | Malto | | - |
| 5 | Sorbitol (70%) | | - |
| 6 | Dextrose Anhydrous | | - |
| 7 | Gluten (By product) | 39.56 | - |
| 8 | Maize Husk Dry (Germ) (By Product) | 61.12 | - |
| 9 | Husk (By Product) | 145.94 | - |
| 10 | Power (C.P.P. – DG Set) | 2.2 MW | - |
| 11 | Power (C.P.P. – Steam Based | 1.5 – 2.0 MW | - |

## Month Wise Production Details

| MONTH | STARCH | GLUCOSE | DEXTROSE | DAH | MALTO | SORBITOL 70 % | TOTAL |
|---|---|---|---|---|---|---|---|
| | MT. | MT. | MT. | | MT. | MT. | MT. |
| Apr-23 | 4919.5 | 1524.8 | 630.2 | 230.0 | 359.1 | 1580.0 | 9243.6 |
| May-23 | 4515.0 | 1447.5 | 519.9 | 173.5 | 339.6 | 1520.0 | 8515.5 |
| Jun-23 | 4767.5 | 1431.4 | 451.8 | 214.0 | 314.1 | 1540.0 | 8718.7 |
| Jul-23 | 4820.0 | 1688.2 | 506.5 | 244.5 | 355.1 | 1950.0 | 9564.2 |
| Aug-23 | 4858.3 | 1577.9 | 543.3 | 228.0 | 350.3 | 1910.0 | 9467.8 |
| Sep-23 | 4741.5 | 1332.9 | 538.5 | 224.5 | 310.4 | 1390.0 | 8537.8 |
| Oct-23 | 5225.5 | 1830.8 | 577.8 | 232.0 | 363.7 | 1025.0 | 9254.8 |
| Nov-23 | 4901.5 | 1568.8 | 588.8 | 223.0 | 338.1 | 1590.0 | 9210.1 |
| Dec-23 | 5044.0 | 1654.1 | 693.0 | 231.5 | 309.0 | 785.0 | 8716.6 |
| Jan-24 | 5002.5 | 1691.4 | 751.6 | 251.0 | 331.3 | 1685.0 | 9712.8 |
| Feb-24 | 3732.5 | 1279.5 | 611.2 | 214.5 | 312.4 | 1060.0 | 7210.0 |
| Mar-24 | 4296.3 | 1543.2 | 538.7 | 222.0 | 282.8 | 1080.0 | 7962.9 |
| **TOTAL :** | **43792.8** | **14056.4** | **5049.5** | **2001.0** | **3039.3** | **13290.0** | **81229.0** |

**Annexure – B 2**

# By-product Details

# Annexure – B 2

## Details of By-products

| MONTH | GLUTEN | MAIZE HUSK DRY (GERM) | TOTAL HUSK (DRY) | TOTAL |
|---|---|---|---|---|
| | MT. | MT. | MT. | MT. |
| Apr-23 | 545.7 | 752.0 | 1715.4 | 3013.1 |
| May-23 | 486.0 | 678.6 | 1526.2 | 2690.8 |
| Jun-23 | 467.7 | 733.4 | 1669.2 | 2870.3 |
| Jul-23 | 516.3 | 814.0 | 1980.7 | 3311.0 |
| Aug-23 | 485.4 | 790.8 | 2012.5 | 3288.7 |
| Sep-23 | 434.7 | 720.6 | 1723.2 | 2878.5 |
| Oct-23 | 512.4 | 753.6 | 1759.4 | 3025.4 |
| Nov-23 | 514.8 | 733.6 | 1820.4 | 3068.8 |
| Dec-23 | 493.5 | 755.6 | 1695.9 | 2945.0 |
| Jan-24 | 550.5 | 826.4 | 1920.9 | 3297.8 |
| Feb-24 | 327.3 | 566.8 | 1531.8 | 2425.9 |
| Mar-24 | 360.6 | 677.0 | 1659.9 | 2697.5 |
| **TOTAL :** | **4456.5** | **6732.2** | **15902.8** | **27091.5** |

**Annexure – B 3**

# Date of commencement of production

## Annexure - B 3

## Production details

| Name of Product | Date of Commencement | Consented Quantity (MT/Month) | Actual production during audit current period (MT/Month) | Complied or not |
|---|---|---|---|---|
| Starch | 01/07/1995 | 9750 | 5225.5 | Complied |
| Glucose | 01/07/1995 | | 1830.8 | |
| Dextrose | 01/07/1995 | | 577.8 | |
| Malto | 01/07/1995 | | 232 | |
| Sorbitol (70%) | 14/02/2005 | | 363.7 | |
| Dextrose Anhydrous | 14/02/2005 | | 1025 | |
| | **Total** | **9750** | **9254.8** | |

**Annexure – B 4**

# Details of Raw Materials

## Annexure – B 4

## Details of raw materials required per kg of product

| Sr. NO. | Name of Product | Name of Raw Materials | Kg/kg |
|---|---|---|---|
| 1 | MAIZE | MAIZE SEED | |
| 2 | | | |
| 3 | | | |
| 4 | | | |

## Annexure – B 4

## Details of Raw Materials Consumption Per MT of Production

| MONTH | RM (MT) |
|---|---|
| Apr-23 | 13837.18 |
| May-23 | 12707.06 |
| Jun-23 | 13150.02 |
| Jul-23 | 14325.00 |
| Aug-23 | 14230.00 |
| Sep-23 | 12982.00 |
| Oct-23 | 14176.69 |
| Nov-23 | 13824.45 |
| Dec-23 | 13433.00 |
| Jan-24 | 14989.00 |
| Feb-24 | 11185.61 |
| Mar-24 | 12481.83 |
| **TOTAL :** | **161321.83** |

**Annexure – B 5**

# Type of Manufacturing Process

## Annexure – B 5

## Details of type of manufacturing process

| Name of Product | Batch / Continuous | Batch capacity | No. of batch / Month | Duration of the completion of each batch |
|---|---|---|---|---|
| Starch | Batch | 45 MT. | 106 NOS. | 6.76 |
| Glucose | Batch | 120 MT. | 12 NOS. | 59.80 |
| Dextrose | Batch | 30 MT. | 19 NOS. | 36.102 |
| Malto | Batch | 30 MT. | 9 NOS. | 72.828 |
| Sorbitol (70%) | Batch | 120 MT. | 12 NOS. | 58.842 |
| Dextrose Anhydrous | Batch | 10 MT. | 22 NOS. | 32.610 |
| Power (C.P.P. – DG Set) | Continuous | | | |
| Power (C.P.P. – Steam Based | Continuous | | | |

**Annexure – B 6**

# Manufacturing Process with Flow diagram

## Annexure – B 6

## Details of Manufacturing Process

**Annexure – C 1**

# Quantity of water consumed

## Annexure – C 1

## Quantity of Water Consumed

## WATER CONSUMPTION FOR THE YEAR 2023-24

| MONTH | Industrial Cooling boiler | Domestic | Processing Bio-degradable | TOTAL |
|---|---|---|---|---|
| Apr-23 | 15492 | 598 | 24946 | 41036 |
| May-23 | 14140 | 605 | 22771 | 37516 |
| Jun-23 | 14809 | 614 | 23846 | 39269 |
| Jul-23 | 16191 | 609 | 26073 | 42873 |
| Aug-23 | 16079 | 505 | 25903 | 42487 |
| Sep-23 | 14624 | 493 | 23552 | 38669 |
| Oct-23 | 15971 | 444 | 25717 | 42132 |
| Nov-23 | 15577 | 372 | 25088 | 41037 |
| Dec-23 | 15070 | 336 | 24270 | 39676 |
| Jan-24 | 16794 | 305 | 27048 | 44147 |
| Feb-24 | 12390 | 212 | 19949 | 32551 |
| Mar-24 | 13685 | 204 | 22042 | 35931 |
| **TOTAL :** | **180822** | **5297** | **291205** | **477324** |

**Annexure – C 2**

# Quantity of wastewater generated

# Annexure – C 2

## Quantity of Wastewater Generated

| Sr. No. | Month | Wastewater generated per day | Wastewater generated ton of product |
|---|---|---|---|
| 1 | April | 22213 | 2.33 |
| 2 | May | 27200 | 2.24 |
| 3 | June | 26263 | 2.20 |
| 4 | July | 23454 | 2.19 |
| 5 | August | 24784 | 2.25 |
| 6 | September | 24635 | 2.05 |
| 7 | October | 26757 | 2.19 |
| 8 | November | 26499 | 2.07 |
| 9 | December | 26395 | 2.07 |
| 10 | January | 25396 | 2.03 |
| 11 | February | 23202 | 2.14 |
| 12 | March | 26507 | 2.11 |

## Standard waste water generated per ton of product

| | | April 2021 - March 2022 | April 2022 - March 2023 | April 2023 - March 2024 |
|---|---|---|---|---|
| A. | Wastewater generated, Kl / Day | 299212 | 303305 | 303305 |
| B. | Wastewater generated, Per ton of product | 2.51 | 2.15 | -- |

## Annexure – C 2

## Quantity of Water Consumed and Wastewater Generated

| Sr. No. | Month (Year 2023 – 24) | Ind. Boiler/cooling Water KL | Domestic Water KL | Process Water KL | Total KL |
|---|---|---|---|---|---|
| 1 | April | 15492 | 598 | 24946 | 41036 |
| 2 | May | 14140 | 605 | 22771 | 37516 |
| 3 | June | 14809 | 614 | 23846 | 39269 |
| 4 | July | 16191 | 609 | 26073 | 42873 |
| 5 | August | 16079 | 505 | 25903 | 42487 |
| 6 | September | 14624 | 493 | 23552 | 38669 |
| 7 | October | 15971 | 444 | 25717 | 42132 |
| 8 | November | 15577 | 372 | 25088 | 41037 |
| 9 | December | 15070 | 336 | 24270 | 39676 |
| 10 | January | 16794 | 305 | 27048 | 44147 |
| 11 | February | 12390 | 212 | 19949 | 32551 |
| 12 | March | 15492 | 598 | 24946 | 41036 |
| | **Total** | **180822** | **5297** | **291205** | **477324** |

| Annexure – C 2 | | | | | |
|---|---|---|---|---|---|
| **Quantity of Water Consumed And Wastewater Generated Product wise** | | | | | |
| **Sr. No.** | **Product** | **Water Consumed** | | **Waste Water Generated** | |
| | | **KL/Day** | **KL/MT** | **KL/day** | **KL/MT** |
| 1) | Starch | 740 | 1.48 | 328.0 | 0.65 |
| 2) | Glucose | 16.5 | 0.3 | 137.5 | 2.5 |
| 3) | Dextrose | 6.6 | 0.3 | 88.0 | 4.0 |
| 4) | Malto | 3.6 | 0.3 | 12.0 | 1.0 |
| 5) | Sorbitol (70%) | 200 | 3.33 | 180 | 3.0 |
| 6) | Dextrose Anhydrous | 13.84 | 1.62 | 25 | 2.94 |
| 7) | Power (C.P.P. – DG Set) | | | | - |
| 8) | Power (C.P.P. – Steam Based | | | | |

**Annexure – C 3**

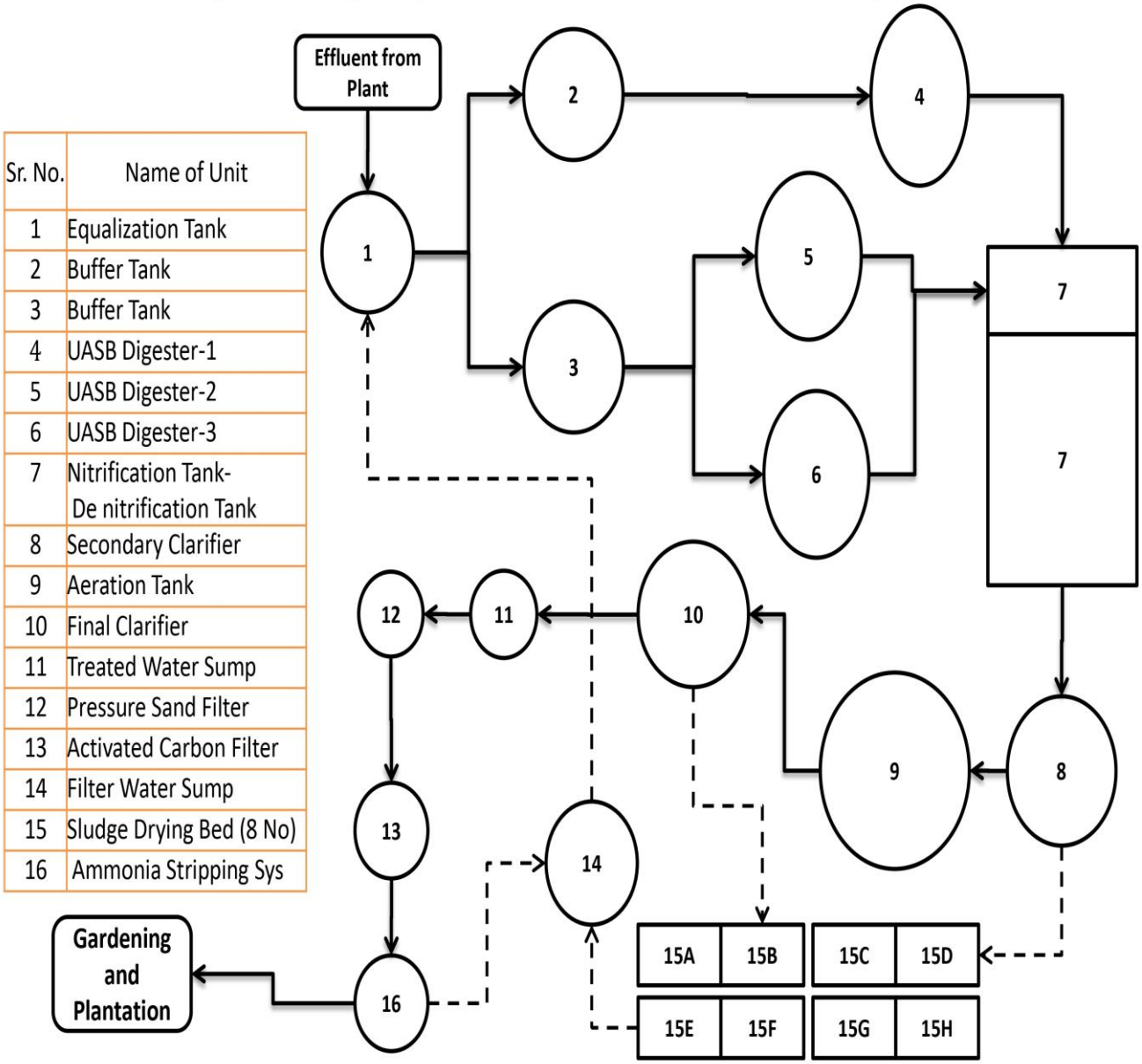
# Particulars of Effluent Treatment Plant

## Annexure C 3

## Flow diagram of ETP

**Gujarat Ambuja Exports Limited Effluent treatment diagram**

| Sr. No. | Name of Unit |
|---|---|
| 1 | Equalization Tank |
| 2 | Buffer Tank |
| 3 | Buffer Tank |
| 4 | UASB Digester-1 |
| 5 | UASB Digester-2 |
| 6 | UASB Digester-3 |
| 7 | Nitrification Tank- De nitrification Tank |
| 8 | Secondary Clarifier |
| 9 | Aeration Tank |
| 10 | Final Clarifier |
| 11 | Treated Water Sump |
| 12 | Pressure Sand Filter |
| 13 | Activated Carbon Filter |
| 14 | Filter Water Sump |
| 15 | Sludge Drying Bed (8 No) |
| 16 | Ammonia Stripping Sys |



## Name and size of each unit

| Sr. No. | Name of ETP Unit | Size | Hydraulic capacity |
|---|---|---|---|
| 1 | Equalization Tank | 9.0 Ø ×7.3 H | 464.0 |
| 2 | Buffer Tank | 9.0 Ø ×4.3 H | 273.4 |
| 3 | Buffer Tank | 9.0 Ø ×2.4 H | 152.6 |
| 4 | UASB Digester-1 | 24.0 Ø ×9.0 H | 4069.4 |
| 5 | UASB Digester-2 | 19.5 Ø ×11.0 H | 3283.0 |
| 6 | UASB Digester-3 | 19.5 Ø ×11.0 H | 3283.0 |
| 7 | Nitrification-Dentrification Tank | 10.0×30.0×3.0 | 900.0 |
| 8 | Secondary Clarifier | 9.0 Ø ×4.0 H | 254.3 |
| 9 | Aeration Tank | 27.0 Ø ×4.0 H | 2289.0 |
| 10 | Final Clarifier | 11.0 Ø ×3.0 H | 285.0 |
| 11 | Treated Water Sump | 4.6 Ø ×2.8 H | 46.5 |
| 12 | Pressure Sand Filter | 2.5 Ø ×2.0 H | ** |
| 13 | Activated Carbon Filter | 2.5 Ø ×2.0 H | ** |
| 14 | Filter Water Sump | 3.6 Ø ×3.85 H | 39.0 |
| 15 | Sludge Drying Bed(No:8) | 10.0 Ø ×8.0 H | ** |
| 16 | Ammonia Stripping System(set) | 3.0 Ø ×5.5 H | ** |

## Details of Electric Consumption at ETP

| | ETP | APCM |
|---|---|---|
| | | |
| | KWH | KWH |
| April | 64360 | 5470 |
| May | 58220 | 6130 |
| June | 57430 | 8700 |
| July | 70180 | 10620 |
| August | 63480 | 11890 |
| September | 63210 | 5750 |
| October | 71810 | 5920 |
| November | 58690 | 5970 |
| December | 66857 | 6020 |
| January | 73180 | 6900 |
| February | 59710 | 6100 |
| March | 56320 | 6500 |
| | **763447** | **85970** |

## Details of Chemical Consumption at ETP

| Sr. No. | Month & Year (2023-24) | Name of Chemical consumed (Kg) Columns may be added |
|---|---|---|
| 1 | April | N.A |
| 2 | May | N.A |
| 3 | June | N.A |
| 4 | July | N.A |
| 5 | August | N.A |
| 6 | September | N.A |
| 7 | October | N.A |
| 8 | November | N.A |
| 9 | December | N.A |
| 10 | January | N.A |
| 11 | February | N.A |
| 12 | March | N.A |

## Details of flowmeters

| | Inlet of ETP | Outlet of ETP |
|---|---|---|
| Type of Flowmeter | N.A | Magnetic Flow Meter |

**Annexure – C 4**

# Quality of Trade effluent (Effluent Analysis Report)

# ANNEXURE – C 4

# EFFLUENT ANALYSIS REPORT

# 1ST MONITORING

| Sr. No. | Parameter | Units | 1 | 2 | 3 | 4 | Permissible Limit as per GPCB norms | |
|---|---|---|---|---|---|---|---|---|
| 1. | pH | - | 5.94 | 8.1 | 7.5 | 7.9 | 6.5-8.5 | - ve |
| 2. | TDS | mg/L | 9051 | 2021 | 2564 | 2105 | 2100 | - ve |
| 3. | Suspended Solids | mg/L | 2156 | 68 | 101 | 99.5 | 100 | - ve |
| 4. | COD | mg/L | 894 | 86 | 156 | 98.5 | 100 | - ve |
| 5. | BOD | mg/L | 265 | 23 | 24 | 29 | 30 | - ve |
| 6. | Oil & Grease | mg/L | 8.6 | 1.6 | 0.04 | 0.03 | 10 | - ve |
| 7. | Ammonical Nitrogen | mg/L | 11.6 | 1.6 | 1.2 | 1.9 | 50 | - ve |
| 8. | Phenolic Compound | mg/L | - | - | - | - | - | - ve |
| 9. | Chloride | mg/L | 506 | 584 | 551 | 452 | 600 | - ve |
| 10. | Sulphate | mg/L | 236 | 123 | 159 | 153 | 1000 | - ve |
| 11. | Sulfide | mg/L | 3.9 | 2.6 | 2.4 | 1.2 | 2 | - ve |
| 12. | Temperature | $^0$C | 29 | 35 | 26 | 29 | 40 | - ve |
| 13. | Copper | mg/L | BDL | BDL | BDL | BDL | - | - ve |
| 14. | Lead | mg/L | BDL | BDL | BDL | BDL | - | - ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

| Sr. No. | Description of WW sample |
|---|---|
| 1 | ETP Inlet |
| 2 | Final Outlet |
| 3 | Digester Outlet |
| 4 | Buffer |

# ANNEXURE – C 4

# EFFLUENT ANALYSIS REPORT

# 2nd MONITORING

| S. N. | Parameter | Units | | | | Permissible Limit as per GPCB norms | *% Deviation |
|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | | |
| 1. | pH | - | 6.10 | 7.6 | 7.4 | 6.5-8.5 | - ve |
| 2. | TDS | mg/L | 8648 | 1658 | 2056 | 2100 | - ve |
| 3. | Suspended Solids | mg/L | 1253 | 56 | 41 | 100 | - ve |
| 4. | COD | mg/L | 694 | 81 | 94 | 100 | - ve |
| 5. | BOD | mg/L | 154 | 29 | 28 | 30 | - ve |
| 6. | Ammonical Nitrogen | mg/L | 8.1 | BDL | BDL | 50 | - ve |
| 7. | Temperature | $^0$C | 30 | 31 | 30 | 40 | - ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

| Sr. No. | Description of WW sample |
|---|---|
| 1 | ETP Inlet |
| 2 | Final Outlet |
| 3 | Buffer |

# ANNEXURE – C 4

# EFFLUENT ANALYSIS REPORT

# 3rd MONITORING

| Sr. No. | Parameter | Units | | | | Permissible Limit as per GPCB norms | *% Deviation |
|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | | |
| 1. | pH | - | 6.1 | 7.1 | 7.2 | 6.5-8.5 | - ve |
| 2. | TDS | mg/L | 6489 | 1705 | 1985 | 2100 | - ve |
| 3. | Suspended Solids | mg/L | 998 | 54 | 88 | 100 | - ve |
| 4. | COD | mg/L | 795 | 56 | 91 | 100 | - ve |
| 5. | BOD | mg/L | 214 | 56 | 29 | 30 | - ve |
| 6. | Ammonical Nitrogen | mg/L | 3.2 | BDL | 0.3 | 50 | - ve |
| 7. | Temperature | $^0$C | 32 | 33 | 36 | 40 | - ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

| Sr. No. | Description of WW sample |
|---|---|
| 1 | ETP Inlet |
| 2 | Final Outlet |
| 3 | Buffer |

## Annexure – C 4

## Quality of Raw Water

| Sr. No. | Parameter | Raw Water |
|---|---|---|
| 1 | pH | 7.1 |
| 2 | Total dissolved Solids | 846 |
| 3 | Chlorides | 156 |
| 4 | Total Alkalinity | 59 |
| 5 | Phosphate | 04 |
| 6 | Total Hardness | 435 |
| 9 | Sulphate | 1.2 |

**NOTE:** ALL PARAMETERS ARE EXPRESSED IN mg/l: EXCEPT pH

**Annexure – C 5**

# Details About operators/Chemist Associated with ETP

# ANNEXURE – C 5

## Details about Operators / Chemists Responsible for Operation and Maintenance of ETP

| SR. NO. | NAME | QUALIFICATION | EXPERIENCE (YEARS) | SALARY (Rs./MONTH) |
|---|---|---|---|---|
| 1 | Bharat Goswami | Bsc. Chemisrty | 20 Year | 30000/- |
| 2 | JashvantJ Chauhan | OPERATOR | 25 year | 18000/- |
| 3 | Govardhan M Makwana | OPERATOR | 24 year | 18000/- |
| 4 | Jayanti PMakwana | OPERATOR | 24 year | 18000/- |
| 5 | Kuvarji Parmar | OPERATOR | 8 year | 18000/- |
| 6 | Nitinkumar VNinama | Ass.Operator | 3 year | 14000/- |
| 7 | MukeshJ Chauhan | Ass.Operator | 10 year | 14000/- |
| 8 | Alpesh Makwana | Ass.Operator | 7 year | 14000/- |
| 9 | Alpesh C Parmar | Ass.Operator | 7 year | 14000/- |
| 10 | Chetanpuri Goswami | Ass.Operator | 7 year | 14000/- |
| 11 | Sanjay H Parmar | Ass.Operator | 7 year | 14000/- |
| 12 | Rathod Ajaykumar | Ass.Operator | 2 year | 14000/- |
| 13 | Chauhan Anilkumar | Ass.Operator | 2 year | 14000/- |
| 14 | Kiritsinh K Chauhan | Ass.Operator | 2 year | 14000/- |
| 15 | Kachrusinh K Makwana | Helper | 25 year | 12000/- |
| 16 | Karan N Makwana | Helper | 24 year | 12000/- |
| 17 | Ratanbhai G Bhabhor | Helper | 10 year | 12000/- |

**Annexure – C 6**

# Details Regarding Water Consent

**Annexure – D 1**

# Details of Flue Gas Stack

## ANNEXURE – D 1

## DETAILS OF FLUE GAS STACKS

| Sr. No. | Stack Attached to | APCM unit | Stack height (mt) | Parameter | Status of Stack monitoring facility (adequate or not) |
|---|---|---|---|---|---|
| 1 | FBCCVL Type Boiler (WATERTUBE ) CAP-20 TPH | Multi cyclone separator + Scrubber | 41 m | Particulate Matter, SO2, NOx | Adequate |
| 2 | CPP(Steam Base) Cap-22TPH | ESP + Water Scrubber | 70 m | Particulate Matter, SO2, NOx, Mercury | Adequate |
| 3 | BioGas Engine-1 | - | 15 m | Particulate Matter, SO2, NOx | Adequate |
| 4 | BioGas Engine-2 | - | 15 m | | Adequate |

**Annexure – D 2**

# Details of Fuel Consumption

# ANNEXURE – D 2
## Details of Fuel Consumption

| MONTH | COAL | LIGNITE | BIOGAS |
|---|---|---|---|
| | MT. | MT. | M3 |
| Apr-23 | 4100.619 | 0.000 | 318374 |
| May-23 | 4251.809 | 0.000 | 282252 |
| Jun-23 | 4123.868 | 0.000 | 240319 |
| Jul-23 | 4250.955 | 0.000 | 159184 |
| Aug-23 | 4250.131 | 0.000 | 0 |
| Sep-23 | 4109.131 | 0.000 | 113747 |
| Oct-23 | 4051.131 | 188.750 | 192626 |
| Nov-23 | 3430.611 | 672.000 | 225625 |
| Dec-23 | 3170.554 | 1059.954 | 237185 |
| Jan-24 | 3560.700 | 690.550 | 259292 |
| Feb-24 | 3614.459 | 0 | 203595 |
| Mar-24 | 4114.948 | 0 | 186313 |
| **TOTAL :** | **47028.916** | **2611.254** | **2418512** |

**Annexure – D 3**

# Details of Process Stack

# ANNEXURE – D 3

## DETAILS OF PROCESS GAS STACKS

| Sr. No. | Stack Attached to | APCM unit | Stack height (mt) | Parameter | Status of Stack monitoring facility (adequate or not) |
|---|---|---|---|---|---|
| 1 | Old Dryer of starch Plant | Water Scrubber | 17 m | Particulate Matter, SO2, NOx | adequate |
| 2 | New dryer of starch plant | Water Scrubber | 17 m | | Not Approachable |
| 3 | Dryer of dextrose plant | Cyclone separator | 17 m | | adequate |
| 4 | Dextrose converter (Flash Vessel) | Wet cyclone separator | 17 m | | adequate |
| 5 | Glucose converter (Flash Vessel) | Wet cyclone separator | 17 m | | adequate |
| 6 | Dryer | Cyclone separator | 17 m | | adequate |

**Annexure – D 4**

# Details of Flue Gas & Process Stack Analysis Report

# ANNEXURE – D 4

## FLUE GAS & PROCESS STACK MONITORING REPORT

## 1ST MONITORING

| LOCATION | PARAMETER | UNIT | ANALYSIS RESULTS | GPCB NORMS | % DEVIATION |
|---|---|---|---|---|---|
| CPP (Steam Base Boiler) | SPM | (mg / $Nm^3$) | 9.65 | 50 | -ve |
| | $SO_2$ | (PPM) | 15.65 | 600 | -ve |
| | $NO_X$ | (PPM) | 5.99 | 300 | -ve |
| Bio Gas Engine – II | SPM | (mg / $Nm^3$) | 11.65 | 150 | -ve |
| | $SO_2$ | (PPM) | 13.69 | 100 | -ve |
| | $NO_X$ | (PPM) | 5.21 | 50 | -ve |
| Dryer Dextrose Plant | SPM | (mg / $Nm^3$) | 25.34 | 150 | -ve |
| | $SO_2$ | (PPM) | 18.48 | 40 | -ve |
| | $NO_X$ | (PPM) | 4.22 | 25 | -ve |
| Dextrose Converter (Flash Vessel) | SPM | (mg / $Nm^3$) | 18.64 | 150 | -ve |
| | $SO_2$ | (PPM) | 21.66 | 40 | -ve |
| | $NO_X$ | (PPM) | 5.09 | 25 | -ve |
| Dryer | SPM | (mg / $Nm^3$) | 11.22 | 150 | -ve |
| | $SO_2$ | (PPM) | 23.66 | 40 | -ve |
| | $NO_X$ | (PPM) | 8.51 | 25 | -ve |
| Dextrose Converter (Flash Vessel) | SPM | (mg / $Nm^3$) | | 150 | -ve |
| | $SO_2$ | (PPM) | | 40 | -ve |
| | $NO_X$ | (PPM) | | 25 | -ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

# ANNEXURE – D 4

## FLUE GAS & PROCESS STACK MONITORING REPORT

## 2nd MONITORING

| LOCATION | PARAMETER | UNIT | ANALYSIS RESULTS | GPCB NORMS | % DEVIATION |
|---|---|---|---|---|---|
| CPP (Steam Base Boiler) | SPM | (mg / $Nm^3$) | 8.12 | 50 | -ve |
| | $SO_2$ | (PPM) | 12.32 | 600 | -ve |
| | $NO_X$ | (PPM) | 6.51 | 300 | -ve |
| Dryer Dextrose Plant | SPM | (mg / $Nm^3$) | 20.90 | 150 | -ve |
| | $SO_2$ | (PPM) | 16.21 | 40 | -ve |
| | $NO_X$ | (PPM) | 8.87 | 25 | -ve |
| Dextrose Converter (Flash Vessel) | SPM | (mg / $Nm^3$) | 12.62 | 150 | -ve |
| | $SO_2$ | (PPM) | 16.54 | 40 | -ve |
| | $NO_X$ | (PPM) | 6.21 | 25 | -ve |
| Glucose Converter | SPM | (mg / $Nm^3$) | 11.62 | 150 | -ve |
| | $SO_2$ | (PPM) | 14.22 | 40 | -ve |
| | $NO_X$ | (PPM) | 6.84 | 25 | -ve |
| Dryer | SPM | (mg / $Nm^3$) | 19.68 | 150 | -ve |
| | $SO_2$ | (PPM) | 14.95 | 40 | -ve |
| | $NO_X$ | (PPM) | 6.25 | 25 | -ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

# ANNEXURE – D 4

## FLUE GAS & PROCESS STACK MONITORING REPORT

## 3rd MONITORING

| LOCATION | PARAMETER | UNIT | ANALYSIS RESULTS | GPCB NORMS | % DEVIATION |
|---|---|---|---|---|---|
| CPP (Steam Base Boiler) | SPM | (mg / $Nm^3$) | 12.43 | 50 | -ve |
| | $SO_2$ | (PPM) | 24.19 | 600 | -ve |
| | $NO_X$ | (PPM) | 16.14 | 300 | -ve |
| Dryer Dextrose Plant | SPM | (mg / $Nm^3$) | 11.09 | 150 | -ve |
| | $SO_2$ | (PPM) | 14.04 | 40 | -ve |
| | $NO_X$ | (PPM) | 8.21 | 25 | -ve |
| Dextrose Converter (Flash Vessel) | SPM | (mg / $Nm^3$) | 22.69 | 150 | -ve |
| | $SO_2$ | (PPM) | 13.69 | 40 | -ve |
| | $NO_X$ | (PPM) | 8.4 | 25 | -ve |
| Glucose Converter | SPM | (mg / $Nm^3$) | 9.65 | 150 | -ve |
| | $SO_2$ | (PPM) | 14.51 | 40 | -ve |
| | $NO_X$ | (PPM) | 5.61 | 25 | -ve |
| New Dryer | SPM | (mg / $Nm^3$) | 15.68 | 150 | -ve |
| | $SO_2$ | (PPM) | 7.65 | 40 | -ve |
| | $NO_X$ | (PPM) | 6.69 | 25 | -ve |
| DG Set | SPM | (mg / $Nm^3$) | 11.32 | - | -ve |
| | $SO_2$ | (PPM) | 8.1 | - | -ve |
| | $NO_X$ | (PPM) | 4.2 | - | -ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

**Annexure – D 5**

# Details of Ambient Air Monitoring

# ANNEXURE – D 5

# AMBIENT AIR MONITORING REPORT

## 1ST MONITORING: 00/00/2023

| Location | Sampling Duration | Parameter | Units | Results | Permissible limit as per GPCB norms | *% Deviation |
|---|---|---|---|---|---|---|
| Main Gate | 24 hrs | $PM_{2.5}$ | µG/M$^3$ | 31.65 | 60 | - ve |
| | | $SO_2$ | | - | 80 | - ve |
| | | $NO_X$ | | - | 80 | - ve |
| Admin Office | | $PM_{10}$ | | 36.54 | 100 | - ve |
| | | $SO_2$ | | 13.64 | 80 | - ve |
| | | $NO_X$ | | 15.46 | 80 | - ve |
| Central Lab | | $PM_{10}$ | | 16.25 | 100 | - ve |
| | | $SO_2$ | | 10.89 | 80 | - ve |
| | | $NO_X$ | | 11.86 | 80 | - ve |

## 2nd MONITORING

| Location | Sampling Duration | Parameter | Units | Results | Permissible limit as per GPCB norms | *% Deviation |
|---|---|---|---|---|---|---|
| Main Gate | 24 hrs | $PM_{2.5}$ | µG/M$^3$ | 30.26 | 60 | - ve |
| | | $SO_2$ | | - | 80 | - ve |
| | | $NO_X$ | | - | 80 | - ve |
| Admin Office | | $PM_{10}$ | | 31.22 | 100 | - ve |
| | | $SO_2$ | | 10.59 | 80 | - ve |
| | | $NO_X$ | | 14.94 | 80 | - ve |
| Central Lab | | $PM_{10}$ | | 15.69 | 100 | - ve |
| | | $SO_2$ | | 11.22 | 80 | - ve |
| | | $NO_X$ | | 9.56 | 80 | - ve |

## 3rd MONITORING

| Location | Sampling Duration | Parameter | Units | Results | Permissible limit as per GPCB norms | *% Deviation |
|---|---|---|---|---|---|---|
| Main Gate | 24 hrs | $PM_{2.5}$ | µG/M$^3$ | 22.33 | 60 | - ve |
| | | $SO_2$ | | - | 80 | - ve |
| | | $NO_X$ | | - | 80 | - ve |
| ETP Plant | | $PM_{10}$ | | 41.25 | 100 | - ve |
| | | $SO_2$ | | 15.88 | 80 | - ve |
| | | $NO_X$ | | 11.94 | 80 | - ve |

***Note:** A +ve value of % deviation indicates value of parameter higher than consent norms. A –ve values of % deviation indicates value of parameters within consent norms.

**Annexure – D 6**

# Details Regarding Air Consent

**Annexure – D 7**

# Details of air pollution measures

# ANNEXURE – D 7

# DETAILS OF AIR POLLUTION MEASURES

## FLUE GAS STACK

| Sr. No. | Stack Attached to | APCM unit |
|---|---|---|
| 1 | FBCCVL Type Boiler (WATERTUBE ) CAP-20 TPH | Multi cyclone separator + Scrubber |
| 2 | CPP(Steam Base) Cap-22TPH | ESP + Water Scrubber |
| 3 | BioGas Engine-1 | - |
| 4 | BioGas Engine-2 | - |

## PROCESS STACK

| Sr. No. | Stack Attached to | APCM unit |
|---|---|---|
| 1 | Old Dryer of starch Plant | Water Scrubber |
| 2 | New dryer of starch plant | Water Scrubber |
| 3 | Dryer of dextrose plant | Cyclone separator |
| 4 | Dextrose converter (Flash Vessel) | Wet cyclone separator |
| 5 | Glucose converter (Flash Vessel) | Wet cyclone separator |
| 6 | Dryer | Cyclone separator |

**Annexure E 1**

# Details of Solid / Hazardous Waste

## ANNEXURE – E 1

## DETAILS OF SOLID / HAZARDOUS WASTE

| Sr. No. | Name of Hazardous waste / Solid waste with category no. | Source | Quantity (MT/Year) | | Composition |
|---|---|---|---|---|---|
| | | | Consent | Generated | |
| 1 | ETP Sludge | Aerartion Tank | 240 | 20.10 | Collection, Storage, Transporation, Disposal at TSDFsite |
| 2 | Used Oil | Machinery | 7.2 | 1.40 | Collection, Storage, Transporation, disposa by seling to register Refiner |
| 3 | Sludge form wet scrubber | Scrubber | 60 | 20.80 | Collection, Storage, and reuse back in process |
| 4 | Spent carbon | Ion Exchange | 1080 | 7.6 | Collection, Storage, Transporation, Disposal to Co-processing |
| 5 | Spent Resin | Ion Exchange | 1.2 | 0.14 | Collection, Storage, Transporation, Disposal at TSDFsite |
| 6 | Process Waste | Process Plant | 6 | 19.10 | Collection, Storage, and disposal to UASB for bio degradation |

| Sr. No. | Name of Hazardous waste / Solid waste with category no. | Quantity per ton of product | | |
|---|---|---|---|---|
| | | 2021-22 | 2022-23 | 2023-24 |
| 1 | ETP Sludge | 18.6 | 20.10 | |
| 2 | Used Oil | 2.47 | 1.40 | |
| 3 | Sludge form wet scrubber | 20.6 | 20.80 | |
| 4 | Spent carbon | 12.00 | 7.6 | |
| 5 | Spent Resin | 0.1 | 0.14 | |
| 6 | Process Waste | 24.4 | 19.10 | |

**Annexure E 2**

# Details Regarding Monthly Generation of Hazardous / Solid Waste

## Annexure E 2

## Details of Monthly Generation / Disposal of Hazardous/Solid Waste

| Sr. No. | Month (Year 2023- 24) | HZW 1 Generated | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | April | 1.4 | 0.14 | 1.0 | 0.6 | 0.03 | 0.9 |
| 2 | May | 1.2 | 0.14 | 1.6 | 1.0 | 0 | 1.8 |
| 3 | June | 1.2 | 0.12 | 1.6 | 1.0 | 0.02 | 1.8 |
| 4 | July | 1.4 | 0.1 | 1.2 | 0.6 | 0 | 1.6 |
| 5 | August | 1 | 0.12 | 1.2 | 0.6 | 0.02 | 1.6 |
| 6 | September | 1.4 | 0.1 | 1.4 | 0.8 | 0 | 1.6 |
| 7 | October | 1.8 | 0.10 | 2.0 | 0.4 | 0.02 | 1.6 |
| 8 | November | 2.2 | 0.12 | 1.8 | 0.4 | 0 | 2.0 |
| 9 | December | 2.4 | 0.10 | 2.4 | 0.6 | 0 | 1.4 |
| 10 | January | 1.9 | 0.12 | 2.6 | 0.6 | 0.03 | 1.6 |
| 11 | February | 1.8 | 0.10 | 1.6 | 0.4 | 0 | 1.8 |
| 12 | March | 2.4 | 0.14 | 2.4 | 0.6 | 0.02 | 1.4 |
| Total | | | | | | | |

| | |
|---|---|
| 1 | ETP Sludge |
| 2 | Used Oil |
| 3 | Sludge form wet scrubber |
| 4 | Spent carbon |
| 5 | Spent Resin |
| 6 | Process Waste |

| Sr. No. | Month (Year 2022 - 23) | HZW 1 Sent to TSDF | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | April | 0 | 0 | 1.0 | 0.0 | 0 | 0.9 |
| 2 | May | 0 | 0 | 1.6 | 0.0 | 0 | 1.8 |
| 3 | June | 0 | 0 | 1.6 | 0.0 | 0 | 1.8 |
| 4 | July | 0 | 0 | 1.2 | 0.0 | 0 | 1.6 |
| 5 | August | 0 | 1.27 | 1.2 | 0.0 | 0 | 1.6 |
| 6 | September | 0 | 0 | 1.4 | 0.0 | 0 | 1.6 |
| 7 | October | 0 | 0 | 2.0 | 0.0 | 0 | 1.6 |
| 8 | November | 0 | 0 | 1.8 | 0.0 | 0 | 2.0 |
| 9 | December | 0 | 0 | 2.4 | 0.0 | 0 | 1.4 |
| 10 | January | 0 | 0 | 2.6 | 11.51 | 0 | 1.6 |
| 11 | February | 0 | 0 | 1.6 | 0.0 | 0 | 1.8 |
| 12 | March | 0 | 0 | 2.4 | 0.0 | 0 | 1.4 |
| Total | | 0 | 1.27 | 20.80 | 11.5 | 0.0 | 19.10 |

| | |
|---|---|
| 1 | ETP Sludge |
| 2 | Used Oil |
| 3 | Sludge form wet scrubber |
| 4 | Spent carbon |
| 5 | Spent Resin |
| 6 | Process Waste |

| |
|---|
| 1.Disposal at TSDF Site |
| 2.Disposal by selling to register Re refiner |
| 3. Reuse back in process |
| 4. Disposal of Co process |
| 5. Disposal of TSDF Site |
| 6. Disposal to UASB for Bio-Degradation |

**Annexure E 3**

# Analysis of Hazardous / Solid Waste

## Annexure E 3

## Analysis of Hazardous/Solid Waste

## 1ST MONITORING: 00/00/2023

| Sr. No. | Parameter | Analysis Result |
|---|---|---|
| 1 | pH | 7.56 |
| 2 | Chloride | 5.21 |
| 3 | TDS | 153 |
| 4 | Oil & Grease | 0.2 |
| 5 | Ammo. Nitrogen | 1.2 |
| 6 | BOD | 3.1 |
| 7 | COD | 9.1 |
| 8 | Sulphate | 1.3 |
| 9 | Copper | BDL |
| 10 | Lead | BDL |

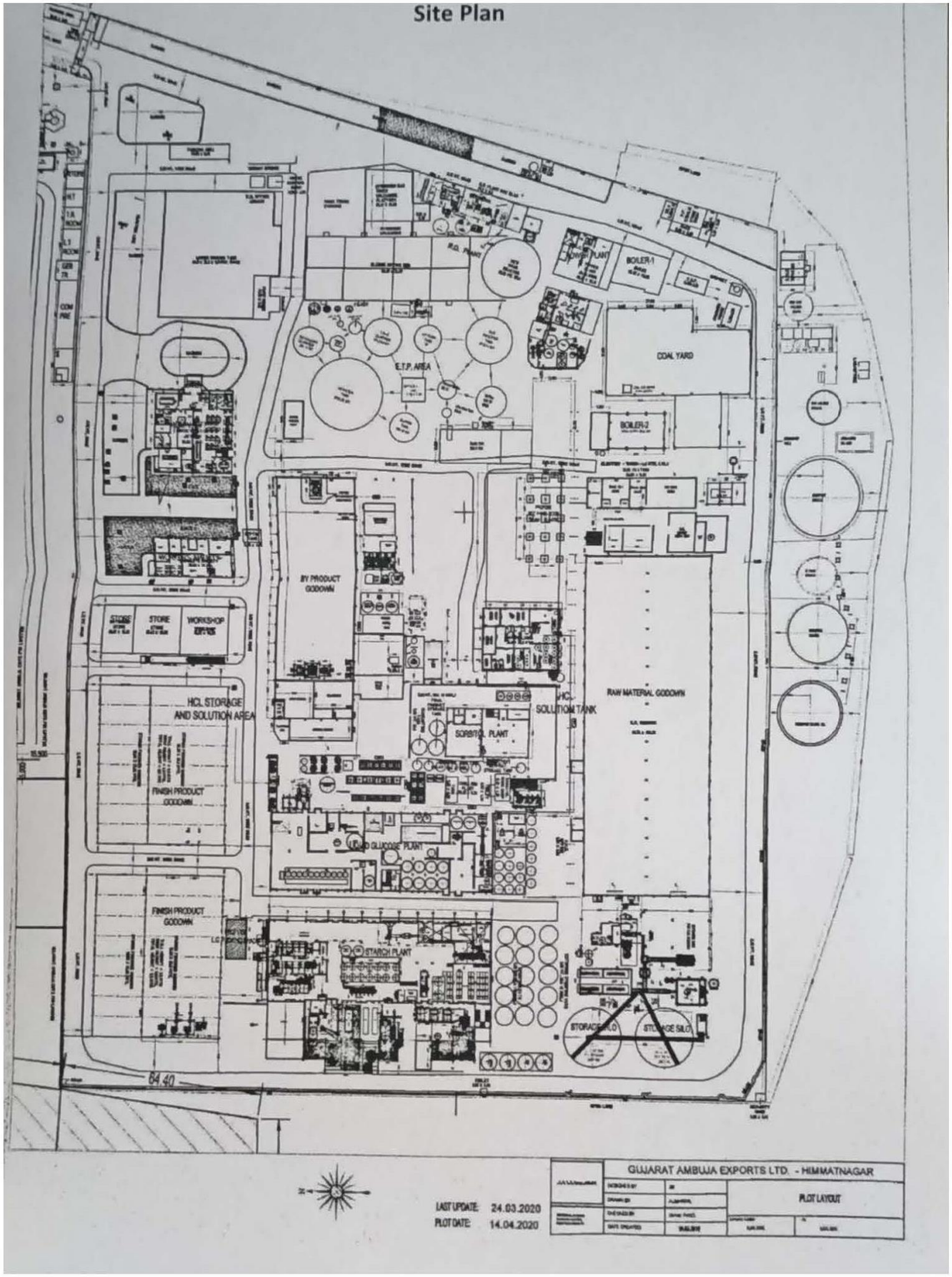
**NOTE:** ALL PARAMETERS ARE EXPRESSED IN mg/l: EXCEPT pH

**Annexure – E 4**

# Details Regarding Hazardous Waste Authorization

**ANNEXURE – F 1**

# Site Plan



# Resource Recovery

# Periodical medical examination & Health Records

# Accidents

**ANNEXURE – J 1**

# Disaster Management Plan

**ANNEXURE – J 2**

# On site / off site emergency plan

**ANNEXURE – K 1**

# Noise Monitoring

## ANNEXURE – K 1

## NOISE MONITORING

## 1ST MONITORING: 00/00/2023

| Sr. No. | Location | Measure (dB) |
|---|---|---|
| 1. | Main Gate | 35 |
| 2. | Nr. Admin Building | 21 |
| 3. | Nr. Central Lab | 46 |
| 4. | Nr. ETP Plant | 42 |

## 2nd & 3rd MONITORING

**As per new guideline by GPCB, samples were not taken.**

**Annexure – K 2**

# Details related to Odor

**Annexure – K 3**

# Details in respect of cases / complaints under water act 1974, Air act 1981, & the EPA 1986

**Annexure – K 4**

# Compliance Report

**ANNEXURE – K 4**
**COMPLIANCE REPORT**

**CONSOLIDATED CONSENT AND AUTHORIZATION (CC & A)**

<table>
<tr><th>Sr. No.</th><th>Consent Condition</th><th>Compliance Status</th></tr>
<tr><td>1</td><td>Consent Order No. AWH-105083 Valid upto14/10/2024date of issue: 15/11/2019</td><td>Complied</td></tr>
<tr><td>1.1</td><td>The consent shall be valid up to 14/10/2024for use of outlet for the discharge of trade effluent & emission due to operation of industrial plant for manufacturing of the following items / products:
<table>
<tr><th>Sr. No.</th><th>Product</th><th>Quantity</th></tr>
<tr><td>1.</td><td>Starch</td><td rowspan="6">9750</td></tr>
<tr><td>2.</td><td>Glucose</td></tr>
<tr><td>3.</td><td>Dextrose</td></tr>
<tr><td>4.</td><td>Malto</td></tr>
<tr><td>5.</td><td>Sorbitol (70%)</td></tr>
<tr><td>6.</td><td>Dextrose Anhydrous</td></tr>
<tr><td>7.</td><td>Gluten (By product)</td><td>580</td></tr>
<tr><td>8.</td><td>Maize Husk Dry (Germ)(By product)</td><td>1026</td></tr>
<tr><td>9.</td><td>Husk (By product)</td><td>1950</td></tr>
<tr><td>10.</td><td>Power (C.P.P DG Set)</td><td>2.2 MW</td></tr>
<tr><td>11.</td><td>Power (C.P.P Steam based)</td><td>1.5 – 2.0 MW</td></tr>
</table></td><td>Complied</td></tr>
<tr><td></td><td>Specific Condition:</td><td></td></tr>
<tr><td>A</td><td>Unit shall obtain NOC permission from CGWA as per order of Hon. National green tribunal for the withdrawal of ground water at rate of 1641 KLPD</td><td>Complied</td></tr>
<tr><td>B</td><td>Unit shall provide STP for the treatment of 24 KLPD domestic waste water and unit shall obtain amendment for the same</td><td>Complied</td></tr>
<tr><td>C</td><td>Unit shall provide water meter at intake of Borewell as well as inlet and outlet of ETP.</td><td>Complied</td></tr>
<tr><td>D</td><td>Industries shall have to maintain daily record of ETP operations in separate register and shall have to submit the monthly report of the same report by first week of next month at regional office and head office of the board.</td><td>Complied</td></tr>
<tr><td>E</td><td>Unit shall comply with coal handling guidelines of the board</td><td>Complied</td></tr>
<tr><td>F</td><td>Unit shall manage solid waste generated from industrial activities as per solid waste management rules-2016</td><td>Complied</td></tr>
<tr><td>G</td><td>As per the provisions of rule-18 of solid waste management rules 2016 you are directed to make an arrangement in utilities to replace at least 5% of fuel with RDF.</td><td>Complied</td></tr>
<tr><td>H</td><td>Unit shall provide scrubber followed by ESP as APCM to the boiler and unit shall provide APCM as per the coal handling guidelines of</td><td>Complied</td></tr>
</table>

<table>
<tr><td></td><td>the board</td><td></td></tr>
<tr><td>I</td><td>Unit shall provide online monitoring system on the Boiler stack with an arrangement to reflect the monitored data on the company’s server, which can be accessed by the GPCB on real time basis.</td><td>Complied</td></tr>
<tr><td>J</td><td>Online measurement of TOC, flow & pH shall be done with an arrangement to reflect monitored data on the ETP's server, which can be accessed by the GPCB on real time basis.</td><td>Complied</td></tr>
<tr><td>K</td><td>Magnetic flow meters shall be provided at the inlet and outlet of ETP and records of the same shall be maintained and submitted to GPCB regularly.</td><td>Complied</td></tr>
<tr><td>2</td><td>CONDITIONS UNDER THE WATER ACT 1974:</td><td></td></tr>
<tr><td>2.1</td><td>The quantity of fresh water consumption for industrial purpose shall not exceed 1614 KLD.1</td><td>Complied</td></tr>
<tr><td>2.2</td><td>The quantity of fresh water consumption for domestic purpose shall not exceed 27 KLD.</td><td>Complied</td></tr>
<tr><td>2.3</td><td>The quantity of trade effluent from the industrial plant shall not exceed 1082 KLPD.</td><td>Complied</td></tr>
<tr><td>2.4</td><td>The applicant should provide adequate effluent treatment system (P+S+T treatment with three anaerobic digestors) in order to achieve the quality of the treated effluent as per GPCB norms.</td><td>Complied</td></tr>
<tr><td>2.5</td><td>The final treated effluent conforming to the standards of the consent shall be utilized on land for gardening and/or plantation purpose.</td><td>Complied</td></tr>
<tr><td>2.6</td><td>All the effluent treatment unit shall be operated and maintained efficiently so that the treated effluent always conforms to the specifications as referred in the consent.</td><td>Complied</td></tr>
<tr><td>2.7</td><td>The internal connection between various units shall be fixed pipeline</td><td>Complied</td></tr>
<tr><td>2.8</td><td>Adequate lighting arrangement shall be made all round the area of ETP.</td><td>Complied</td></tr>
<tr><td>2.9</td><td>Flow meter shall be provided on waste water reuse line and record of the waste water reuse shall be maintained.</td><td>Complied</td></tr>
<tr><td>2.10</td><td>The consent shall be lapsed automatically at any time if the discharge of trade effluent from industrial plant has been observed by the board and in case you have to close down your industrial plant immediately with intimation to board.</td><td>Complied</td></tr>
<tr><td>2.11</td><td>The quantity of sewage effluent from the industrial plant shall not exceed 24 KLD</td><td>Complied</td></tr>
<tr><td>2.12</td><td>Domestic effluent shall be disposed of through septic tank/ Soak pit system or shall be treated separately to conform the standards.</td><td>Complied</td></tr>
<tr><td>2.13</td><td>Separate meter for the record of consumption of power supply for the area off ETP shall be provided.</td><td>Complied</td></tr>
<tr><td></td><td>CONDITIONS UNDER THE AIR ACT:</td><td></td></tr>
<tr><td>3.1</td><td>The following shall be used as fuel.
<table>
<tr><th>Sr. No.</th><th>Fuel</th><th>Quantity</th></tr>
<tr><td>1</td><td>Lignite for CPP</td><td>138 MT/Day</td></tr>
<tr><td>2</td><td>Bio-Gas-I for biogas engine</td><td>20000 $m_3$/Day</td></tr>
<tr><td>3</td><td>Bio-Gas-II for biogas engine</td><td>20000 $m_3$/Day</td></tr>
</table></td><td>Complied</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td>3.2</td><td>The applicant shall install & operate air pollution control system in order to achieve norms prescribed below</td><td>Complied</td></tr>
<tr><td>3.3</td><td>The Flue gas emission through stack shall be as under.<br><br><table><tr><th>Sr. No.</th><th>Stack Attached To</th><th>Stack Height</th><th>APCM</th><th>Parameter</th><th>Permissible Limit</th></tr><tr><td>1</td><td>FBCCVL Type Boiler (WATER TUBE ) CAP-20 TPH</td><td>41 m</td><td>Multi cyclone separator + Scrubber</td><td>Particulate Matter, $SO_2$, $NO_x$</td><td>150 $mg/Nm^3$ 100 $mg/Nm^3$ 50 $mg/Nm^3$</td></tr><tr><td>2</td><td>CPP(Steam Base) Cap-22TPH</td><td>70 m</td><td>ESP + Water Scrubber</td><td>Particulate Matter, $SO_2$, $NO_x$, Mercury</td><td>50 $mg/Nm^3$ 600 $mg/Nm^3$ 300 $mg/Nm^3$ 0.03 $mg/Nm^3$</td></tr><tr><td>3</td><td>BioGas Engine-1</td><td>15 m</td><td></td><td rowspan="2">Particulate Matter, $SO_2$, $NO_x$</td><td>150 $mg/Nm^3$ 100 $mg/Nm^3$ 50 $mg/Nm^3$</td></tr><tr><td>4</td><td>BioGas Engine-2</td><td>15 m</td><td></td></tr></table></td><td>Complied</td></tr>
<tr><td>3.4</td><td>The process emission through various stack/vent and vessel shall conform to following standards<br><br><table><tr><th>Sr. No.</th><th>Stack Attached To</th><th>Stack Height</th><th>APCM</th><th>Parameter</th><th>Permissible Limit</th></tr><tr><td>1</td><td>Old Dryer of starch Plant</td><td>17 m</td><td>Water Scrubber</td><td rowspan="6">Particulate Matter, $SO_2$, $NO_x$</td><td rowspan="6">150 $mg/Nm^3$ 40 $mg/Nm^3$ 25 $mg/Nm^3$</td></tr><tr><td>2</td><td>New dryer of starch plant</td><td>17 m</td><td>Water Scrubber</td></tr><tr><td>3</td><td>Dryer of dextrose plant</td><td>17 m</td><td>Cyclone separator</td></tr><tr><td>4</td><td>Dextrose converter (Flash Vessel)</td><td>17 m</td><td>Wet cyclone separator</td></tr><tr><td>5</td><td>Glucose converter (Flash Vessel)</td><td>17 m</td><td>Wet cyclone separator</td></tr><tr><td>6</td><td>Dryer</td><td>17 m</td><td>Cyclone</td></tr></table></td><td>Complied</td></tr>
</table>

<table>
<tr><td></td><td><table><tr><td></td><td></td><td></td><td>Separat or</td><td></td><td></td></tr></table></td><td></td></tr>
<tr><td>3.5</td><td>The concentration of the following parameters in the ambient air within - the premises of the industry shall not exceed the limits specify hereby<br><br><table><tr><th>Parameter</th><th>Permissible limit</th><th>24 Hrs Average</th></tr><tr><td>Particulate Matter-10<br>(PM 10)</td><td>60 Microgram/$m_3$</td><td>100 Microgram / $m_3$</td></tr><tr><td>Particulate Matter-10<br>(PM 2.5)</td><td>40 Microgram / $m_3$</td><td>60 Microgram / $m_3$</td></tr><tr><td>$S0_2$</td><td>50 Microgram/$m_3$</td><td>80 Microgram / $m_3$</td></tr><tr><td>$NO_x$</td><td>40 Microgram/$m_3$</td><td>80 Microgram / $m_3$</td></tr></table></td><td>Complied</td></tr>
<tr><td>3.6</td><td>The application shall install & operate air pollution control Equipment’s very efficiently and continuously so that the gaseous always conforms to the standards specified in condition No. 3.2 & 3.5above.</td><td>Complied</td></tr>
<tr><td>3.7</td><td>The CTO the industrial plant shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified in the condition no. 3.2 & 3.5 above.</td><td>Complied</td></tr>
<tr><td>3.8</td><td>The industry shall take adequate measures to control of noise level from its own sources within 75 dB (A) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6a.m.</td><td>Complied</td></tr>
<tr><td>3.9</td><td>The applicant shall provide proper ventilation & exhaust facilities so as to maintain healthy working atmosphere within factory premises.</td><td>Complied</td></tr>
<tr><td>4</td><td>GENERAL CONDITIONS:</td><td></td></tr>
<tr><td>4.1</td><td>Any change in personnel, equipment or working conditions as mention in the consents form/order should immediately be intimated to this board.</td><td>Complied</td></tr>
<tr><td>4.2</td><td>Whenever due to accident or other unforeseen act or ever, such emissions occur or is apprehended to occur in excess of standards laid down such information shall be forthwith reported to Board, Concerned Police Station, Office of Directorate of Health service, Department of Explosives, Inspectorate of Factories and local body. In case of failure of pollution control equipment’s, the production process connected to it shall be stopped. Remedial actions/measures shall be implemented immediately to bring entire situation normal.</td><td>Complied</td></tr>
<tr><td>4.3</td><td>Environmental management Unit / Cell shall be setup to ensure implementation on and monitoring f environmental safeguards and other conditions stipulated by statutory authorities. The environmental management cell / unit shall directly report to Chief</td><td>Complied</td></tr>
</table>

<table>
<tr><td></td><td>Executive of the organization and shall work as a focal point for internalizing environmental issues. These cells/units also coordinate the exercise of environmental audit and preparation of environmental statements.</td><td></td></tr>
<tr><td>4.4</td><td>The environmental audit shall be carried out yearly and the environmental statement pertaining to previous year shall be submitted to the board latest by 30th September every year.</td><td>Complied</td></tr>
<tr><td>4.5</td><td>The board reserves right to review and/or revoke the consent and/or make variations in the conditions, which board deems fit in accordance with section 27 of the act.</td><td>Complied</td></tr>
<tr><td>4.6</td><td>In case of change of ownership/management the name address of new owners/partners/directors/proprietor should immediately be intimated to board.</td><td>Complied</td></tr>
<tr><td>5</td><td>AUTHORIZATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES FROM-2 (SEE RULE 5(4))</td><td></td></tr>
<tr><td>5.1</td><td>Form for grant of authorization for occupier or operator handling hazardous waste.</td><td>Complied</td></tr>
<tr><td>5.2</td><td>M/s. Gujarat Ambuja Exports ltd is hereby granted an authorization to operate facility for following hazardous waste on the premises situated at Plot no. 1, Bio Chemical Division, Vrindavan Road, PO: Dalpur, Tal: Prantij, Dist: Sabarkantha as mentioned in consent.<br>Solid /Hazardous Waste :
<table>
<tr><th>Sr. No.</th><th>Types of hazardous waste</th><th>Category</th><th>Quantity, MT/A</th><th>Disposal mode</th></tr>
<tr><td>1</td><td>ETP Sludge</td><td>35.3</td><td>240 MT/Year</td><td>Collection, Storage, Transportation, Disposal To TSDF</td></tr>
<tr><td>2</td><td>Used Oil</td><td>5.1</td><td>7.2 MT/Year</td><td>Collection, Storage, Used AS Lubrication in Machinery & Sale Authorized Recycler</td></tr>
<tr><td>3</td><td>Sludge form wet scrubber</td><td>37.1</td><td>60 MT/Year</td><td>Collection, Storage & Return Back To Supplier</td></tr>
<tr><td>4</td><td>Spent carbon</td><td>36.2</td><td>1080 MT/Year</td><td rowspan="3">Collection, Storage, Transportation, Disposal To TSDF</td></tr>
<tr><td>5</td><td>Spent Resin</td><td>35.2</td><td>1.2 MT/Year</td></tr>
<tr><td>6</td><td>Process Waste</td><td>28.1</td><td>6 MT/Year</td></tr>
</table></td><td>Complied</td></tr>
</table>

| | | |
|---|---|---|
| 5.3 | The authorization is granted to operate a facility for collection, storage,<br>treatment, transportation and ultimate disposal of hazardous waste as<br>given in consent. | Complied |
| 5.4 | The authorization shall be in force for a period of 14/10/2024 from the date of application. | Complied |
| 5.5 | The authorization is subject to the conditions stated below & such other conditions as may be specified in the rules from time to time under the EPA – 1986. | Complied |
| 6 | **TERMS AND CONDITION OF AUTHORIZATION** | |
| 6.1 | The applicant shall comply with the provisions of the Environment (Protection) act-1986 and the rules made there under. | Complied |
| 6.2 | The authorization shall be prepared for inspection at the request of an officer authorized by the Gujarat Pollution Control Board. | Complied |
| 6.3 | The persons authorized shall not rent, lend, sell, and transfer of otherwise transport the hazardous waste without obtaining prior permission of the Gujarat Pollution Control Board. | Complied |
| 6.4 | Any Un-authorized change in personnel, equipment or working condition as mention authorization order by the persons authorized shall constitute a breach of this authorization. | Complied |
| 6.5 | It is the duty of the authorised person to take permission of GPCB to close the unit. | Complied |
| 6.6 | An application for the renewal of an authorization shall be made as laid down in rule 5(6) (ii). | Complied |
| 6.7 | Industry shall have to manage waste oil; discarded container etc. as per amended rules 2003 and shall apply authorisation/submit details for all applicable waste as per amended rules within 15 days. | Complied |
| 6.8 | Industry shall submit annual report within 15 days and subsequently by 31st January every year. | Complied |
| 6.9 | As per u/t submitted by applicant, they shall procure the raw materials within India only , they have not imported raw material from other country | Complied |
| 7 | **General Conditions** | |
| 7.1 | The waste generator shall be totally responsible for (i.e. collection, storage, encapsulation, incineration, treatment, transportation and ultimate disposal) of the wastes generated. | Complied |
| 7.2 | Records of waste generation, its management & annual return shall be submitted to GPCB in Form-4 by 30th July of every year. | Complied |
| 7.3 | In case of any accident, details of the same shall be submitted in Form-5 to GPCB | Complied |
| 7.4 | As per “Public Liability Insurance Act -91” company shall get insurance policy , if applicable | Complied |
| 7.5 | Empty drums & containers of toxic & hazardous material shall be treated as per guidelines published for “Management & Handling of discarded containers”. Records of the same shall be maintained & forwarded to GPCB regularly. | Complied |
| 7.6 | No any kind of hazardous waste shall be imported without prior approval of appropriate authority. | Complied |
| 7.7 | In case of transport of hazardous waste to a facility for existing in state other than the state where hazardous wastes are generated, the occupier shall obtain NOC from SPCB or UTPCC. | Complied |

| | | |
|---|---|---|
| 7.8 | Unit shall take concrete measure for minimum waste generation. | Complied |
| 7.9 | Display board should be as per NGT order. | Complied |
| 7.10 | Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emissions and solid hazardous wastes generated within factory premise. | Complied |
| 7.11 | It is established by any competent authority that the damage is caused due to their industrial act to any person or his property in that case, they are obliged to pay the compensation is determined by the competent authority. | Complied |

**Annexure – K 5**

# Details regarding incidents of spillages, leakages etc. and remedial measures thereof

**Annexure – K 6**

# Insurance policy details under PLI policy

**Annexure – L 1**

# Details related to water cess

# Certificate for sampling and Analysis

# Certificate for sampling and Analysis

This is to certify that the following samples of emissions (air, water , waste water, solid and hazardous wastes) have been collected and analyzed as per the following details :

| Sample details | Sampling location | Collected by | Sample collection | |
|---|---|---|---|---|
| | | | Date | Time |
| Ambient Air | Main Gate | SSIU University Audit Team | 03.08.2023 | 09:15 AM |
| | Admin Office | | | 09:40 AM |
| | Central Lab | | | 10:00 AM |
| Wastewater | ETP Inlet | | | 02:15 PM |
| | Final Outlet | | | 02:30 PM |
| | Digester Outlet | | | 02:45 PM |
| | Buffer | | | 03:00 PM |
| | Raw Water | | | 02:40 PM |
| Process Stack | CPP (Steam Base Boiler) | | | 10:15 AM |
| | Bio Gas Engine – II | | | 10:30 AM |
| | Dryer Dextrose Plant | | | 10:40 AM |
| | Dextrose Converter (Flash Vessel) | | | 11:00 AM |
| | Dryer | | | 11:15 AM |
| | Dextrose Converter (Flash Vessel) | | | 11:40 AM |
| Hazardous Waste | ETP Sludge | | | 12:15 PM |
| Noise Monitoring | Main Gate | | | 03:10 PM |
| | Nr. Admin Building | | | 03:20 PM |
| | Nr. Central Lab | | | 03:30 PM |
| | Nr. ETP Plant | | | 03:45 PM |
| Wastewater | ETP Inlet | SSIU University Audit Team | 21.11.2024 | 02:30 PM |
| | Final Outlet | | | 02:45 PM |
| | Buffer | | | 03:00 PM |
| | CPP (Steam Base Boiler) | | | 10:00 AM |
| | Dryer Dextrose Plant | | | 10:20 AM |
| | Dextrose Converter (Flash Vessel) | | | 10:40 AM |
| | Glucose Converter | | | 10:50 AM |
| | Dryer | | | 11:15 AM |
| Ambient | Main Gate | SSIU University Audit Team | 10.02.2024 | 09:15 AM |
| | ETP Plant | | | 09:40 AM |
| Wastewater | ETP Inlet | | | 11:00 AM |
| | Final Outlet | | | 11:15 AM |
| | Buffer | | | 11:30 AM |
| Process Stack | CPP (Steam Base Boiler) | | | 12:15 PM |
| | Dryer Dextrose Plant | | | 12:30 PM |
| | Dextrose Converter (Flash Vessel) | | | 12:45 PM |
| | Glucose Converter | | | 01:00 PM |
| | New Dryer | | | 01:15 PM |
| | DG Set | | | 01:30 PM |

| | | |
|---|---|---|
| 1. Parameters analyzed on site | | pH, TDS, Temperature |
| 2. Parameters analyzed off site | | Wastewater / Sludge / Air |
| 3. Whether samples were preserved as per standard procedure for off site analysis : | | Yes |
| 4. Parameters analyzed by auditors team : | | All the parameters are analyzed by Swarrnim University |
| 5. Parameters analyzed by third party:<br>o Name & Address of the laboratory:<br>o Whether the laboratory is classified under Schedule 1 of the GPCB | | None |
| 6. Method followed for analysis | | |
| 6.1 | Wastewater / Sludge | The samples were analysed as per the APHA & IS methods for all the parameters listed in Environment Audit Report. |
| 6.2 | Air Emission | |
| | Flue Stack Monitoring | PM : IS:11255 (Part-1):1995-RA 2009 |
| | | SOx: : IS:11255 (Part-2):1995-RA 2009 |
| | | NOx: : IS:11255 (Part-7):1995-RA 2009 |
| | Ambient Air Quality | $PM_{10}$ : IS:5182(Part-23: 1999-RA 2006<br>$PM_{2.5}$ : As per CPCB |
| | | $SO_2$: : IS:5182 (Part-2): 2001-RA 2006 |
| | | NOx: : IS:5182 (Part-6): 2006-RA 2006 |

This is to certify that the third party laboratory in which the analysis has been done is approved under EPA/Accredited by NABL/recognized under Schedule I of GPCB.

**Date:** **Principal,**
**Place:** **SSIU University**

**Adequacy Certificate of Environmental Management System**

Institute of Technology, SSIU University of Ahmedabad is recognized by the GPCB, Gandhinagar under the Environmental Audit Scheme introduced by the Hon'ble High Court Gujarat, vide its Orders dtd.20-13-96 & 13-03-97 and modified vide order dated. 16-09-99, as an environmental auditor for the purpose of the auditing, having carried out Environmental Audit of,

**M/S Gujarat Ambuja Exports Ltd.**
Plot No. 1, (Bio Chemical Division)
Vrindavan Road, Dalpur – 383120.
Taluka: Prantij, Dist: Sabarkantha.

Manufacturing products:

| Sr. No. | Products & By-Products | Capacity, MT/Month | | |
|---|---|---|---|---|
| | | Granted | Actual | Installed |
| 1. | Starch | 9750 | 3649.39 | 9750 |
| 2. | Glucose | | 1171.369 | |
| 3. | Dextrose | | 420.792 | |
| 4. | Malto | | 166.750 | |
| 5. | Sorbitol (70%) | | 253.277 | |
| 6. | Dextrose Anhydrous | | 1107.50 | |
| 7. | Gluten (By product) | 580 | 371.375 | 580 |
| 8. | Maize Husk Dry (Germ)(By product) | 1026 | 561.017 | 1026 |
| 9. | Husk (By product) | 1950 | 1325.235 | 1950 |
| 10. | Power (C.P.P DG Set) | 2.2 MW | 2.7MW | 2.2 MW |
| 11. | Power (C.P.P Steam based) | 1.5-2.0 MW | | 1.5-2.0 MW |

Having completed the environmental audit period on personal monitoring, and audit report, prepared as per the direction of the Hon.'ble High Court in Environment Audit Scheme, it is certified that the Environmental Management System (EMS) provided by this industry for the products manufactured and capacity as stated above is adequate and efficient to achieve quality of effluents (Air + Wastewater + Solid Waste) as specified in Consent / Notifications by GPCB, Gandhinagar for the following Quantity of waste generation:

| | Consent | Actual | Adequate or Not |
|---|---|---|---|
| Ground Water With drawl | 1641 KL/Day | | |
| STP Effluent | 24 KL/Day | | |
| Freshwater consumption | 1641 KL/Day | 1143.11 | |
| Wastewater generation | 1082 KL/Day | | |
| Hazardous waste | | | |
| • ETP Sludge | 240 MT/Year | | |
| • Used Oil | 7.2 MT/Year | | |
| • Sludge form wet scrubber | 60 MT/Year | | |
| • Spent carbon | 1080 MT/Year | | |
| • Spent Resin | 1.2 MT/Year | | |
| • Process Waste | 6 MT/Year | | |

| | | |
|---|---|---|
| 1. Parameters analyzed on site | | pH, TDS, Temperature |
| 2. Parameters analyzed off site | | Wastewater / Sludge / Air |
| 3. Whether samples were preserved as per standard procedure for off site analysis : | | Yes |
| 4. Parameters analyzed by auditors team : | | All the parameters are analyzed by Swarrnim University |
| 5. Parameters analyzed by third party:<br>○ Name & Address of the laboratory:<br>○ Whether the laboratory is classified under Schedule 1 of the GPCB | | None |
| 6. Method followed for analysis | | |
| 6.1 | Wastewater / Sludge | The samples were analysed as per the APHA & IS methods for all the parameters listed in Environment Audit Report. |
| 6.2 | Air Emission | |
| | Flue Stack Monitoring | PM : IS:11255 (Part-1):1995-RA 2009 |
| | | SOx: : IS:11255 (Part-2):1995-RA 2009 |
| | | NOx: : IS:11255 (Part-7):1995-RA 2009 |
| | Ambient Air Quality | $PM_{10}$ : IS:5182(Part-23: 1999-RA 2006<br>$PM_{2.5}$ : As per CPCB |
| | | $SO_2$: : IS:5182 (Part-2): 2001-RA 2006 |
| | | NOx: : IS:5182 (Part-6): 2006-RA 2006 |

This is to certify that the third party laboratory in which the analysis has been done is approved under EPA/Accredited by NABL/recognized under Schedule I of GPCB.

**Date:**
**Place:**

**Principal,**
**SSIU University**

Bhoyan Road, Gandhinagar

| | | | |
|---|---|---|---|
| • Sludge form wet scrubber | 60 MT/Year | 42.1 | **Adequate** |
| • Spent carbon | 1080 MT/Year | 9.9 | **Adequate** |
| • Spent Resin | 1.2 MT/Year | 0.68 | **Adequate** |
| • Process Waste | 6 MT/Year | 3.58 | **Adequate** |

This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in product profile/capacity, quality & quantity of effluents emission (Air + Waste Water + Solid/Hazardous) and efficiency of EMS equipment.

This Certificate forms part of environmental audit report.

**Date:**
**Place: Gandhinagar**

**Coordinator**
Department of Environmental and
Environment and Chemical Engineering

Swarnim Startup & Innovation University
Gandhinagar

GUJARAT AMBUJA EXPORTS LTD.
Bio-Chemical Division
DALFUR

**Reporting Period: FY 2023-24**

**Compliance Report for Stipulated Conditions of Environmental Clearance**
EC Order No. **J-11011/779/2008 – IA II (I) on dated 17th March, 2009**

<table>
<tr><th>Sr No</th><th>Description</th><th>Compliance Status</th></tr>
<tr><td>2.0</td><td>The Ministry of Environment, Forests and Climate Change has examined the proposal and it is noted that M/s. Rallis India Limited has proposed for manufacturing of Agrochemicals with production capacity of 45790 MTPA. Besides 10,000 MTPA of formulations in the solid and liquid form and byproducts wii be manufactured at SEZ, Dahej in District bharuch in Gujarat.
<table>
<tr><th>Sr No</th><th>Particulars</th><th>Quantity</th></tr>
<tr><td rowspan="2">1</td><td>Agrochemical Technical</td><td>45790 TPA</td></tr>
<tr><td>Agrochemical Formulations</td><td>10000 TPA</td></tr>
<tr><td>2</td><td>Captive Power plant</td><td>6 MW</td></tr>
</table></td><td>Complied.<ul><li>The production for the FY 2023-24 is within the capacity.</li><li>The production details are as follows:</li></ul>
<table>
<tr><th>Particulars</th><th>Actual FY 2023-24</th></tr>
<tr><td>Agrochemical Technical</td><td>5075.65 TPA</td></tr>
<tr><td>Agrochemical Formulations</td><td>481.61 TPA</td></tr>
<tr><td>Captive Power plant</td><td>Till plant is not implemented</td></tr>
</table></td></tr>
<tr><td>3.0</td><td>Details of products along with their production capacity are given below:
<table>
<tr><th>SR NO.</th><th>Name of product</th><th>Capacity MT/Year</th></tr>
<tr><td>1</td><td>Metribuzin</td><td>750</td></tr>
<tr><td>2</td><td>Pendimethylene</td><td>4000</td></tr>
<tr><td>3</td><td>Hexaconazole</td><td>500</td></tr>
<tr><td>4</td><td>Propiconazole</td><td>100</td></tr>
<tr><td>5</td><td>Tebuconazole</td><td>500</td></tr>
<tr><td>6</td><td>Metaconazole</td><td>300</td></tr>
<tr><td>7</td><td>Metalaxyl</td><td>200</td></tr>
<tr><td>8</td><td>Metalaxyl-M</td><td>200</td></tr>
<tr><td>9</td><td>Acephate</td><td>10000</td></tr>
<tr><td>10</td><td>2,3 Dichloro-4-Hydroxy Aniline</td><td>50</td></tr>
<tr><td>11</td><td>4-Bromo-1,2 Dichlorobenzene</td><td>50</td></tr>
<tr><td>12</td><td>Acetonitrile</td><td>50</td></tr>
</table></td><td>Complied.<ul><li>As per CCA AWH-113914 dated 26.07.21 valid upto 15.04.26 the capacity of production of Metribuzin and Pendimethylene are 4000 and 5000 TPA respectively.</li><li>Therefore, the production for the FY 2023-24 is within the capacity.</li><li>The details of Authorized Product along with capacity is mentioned in Annexure-1.</li><li>The production details are as follows:</li></ul>
<table>
<tr><td>Name of product</td><td>Production</td></tr>
</table></td></tr>
</table>

| | | |
|---|---|---|
| 13 | Allyl Alcohol | 5000 |
| 14 | Atorvastatin | 5 |
| 15 | Pentoxazone | 50 |
| 16 | Epichlorohydrin | 5000 |
| 17 | Flumetralin | 25 |
| 18 | GY-250(Bisphenol-A-Epoxy Resin) | 100 |
| 19 | Probenazole | 50 |
| 20 | Trimethyl Acetonitrile | 50 |
| 21 | Valsartan | 10 |
| 22 | Allyl Glycidyl Ether | 5000 |
| 23 | PEKK | 200 |
| 24 | Difenoconazole | 500 |
| 25 | Dimethomorph | 500 |
| 26 | Mancozeb | 100 |
| 27 | Myclobutanil | 100 |
| 28 | Propineb | 100 |
| 29 | Thiacloprid | 500 |
| 30 | Thiamethoxam | 100 |
| 31 | Epoxyconazole | 300 |
| 32 | Azoxystrobin | 100 |
| 33 | Bispyribac Sod. | 100 |
| 34 | Cartap Hydrochloride | 1000 |
| 35 | Azimsulfuron | 100 |
| 36 | Kresoxim Methyl | 100 |
| 37 | Potassium Sorbate | 10000 |
| Total | | 45790 |
| 38 | Captive power Plant | 6 MW |
| 39 | Formulation (Solid) | 5000 |

| | MT/Year |
|---|---|
| Pendimethline | 4159.28 |
| Metribuzin | 870.7 |
| Difenoconazole | 25.62 |
| Imibenconazole | 20.05 |
| Pesticides Formulation (MT) | 28.61 |
| Pesticides Formulation (KL) | 453 |

- The by-product details are as follows:

| Name of by-product | Generation MT/Year |
|---|---|
| Spent Acid | 7335.68 |
| Sodium Sulphate | 1108.53 |
| KCl | |

- The Month wise details are attached as **Annexure-2.**

| | | |
|---|---|---|
| 40 | Formulation (Liquid) | 5000 |

List of By-Products along with their Product capacity

| SR NO. | Name of Product | Capacity MT/Year |
|---|---|---|
| 1 | Spent Sulfuric Acid About (30 %) | 15000 |
| 2 | Spent Acid (35%) | 5000 |
| 3 | NaSH Solution (20%) | 1118 |
| 4 | Sodium Sulpahte | 2000 |
| 5 | Sodium Sulphite | 1500 |
| 6 | Sodium BI Sulphite | 1500 |
| 7 | Ammonium Chloride | 2500 |
| 8 | Ammonium Sulphate | 500 |
| 9 | HCL solution | 5000 |
| 10 | AlCl3 Solution | 500 |

It is noted that water requirement of 1875 m3/day will be met from GIDC water supply. The total wastewater generation will be 1266.25 m3/day. The effluent will be segregated into high TDS effluent from the process which will be sent to proposed evaporation system. Water will be evaporated , condensed and recycled to process/ scrubber or sent to proposed ETP. After recovery of solvent from mother liquor, water will be sent to ETP. The biodegradable effluent will be sent to ETP for primary , secondary, and tertiary treatment . The final treated effluent will be discharged through GIDC sewer line to deep sea. Power requirement of 6 MW will be met from the captive power plant (CPP). Till CPP is completed , company would purchase power from GRID/DGVCL/Torrent power. DG sets of 3 MW capacity will be installed for emergency power back up.

**Complied.**

- As per CCA AWH-113914 dated 26.07.21 valid upto 15.04.26, the water consumption permission is 1905 KLD.
- The Average is as below:

| Water Consumption from GIDC | Avg of FY 2023-24 |
|---|---|
| Raw water | 413.38 KLD |

- For general stream wastewater, the process begins with separating and collecting effluents in equalization tanks. These undergo flocculation and settling in primary clarifiers to remove solids before biological treatment in reactors. Secondary treatment includes further settling and filtration to ensure the water meets discharge

<table>
<tr>
<td></td>
<td></td>
<td>standards for disposal. A portion of treated wastewater is fed to RO (Reverse Osmosis) system. The permeate, through this process, is then recycled back into our industrial activities.<br>• Complex wastewater undergoes a pre-treatment phase where it is mixed in sumps and collection tanks, followed by pH adjustment in neutralization tanks. Then it is passed through evaporator system. The condensate from the system is further treated with general stream. And the solids are disposed off to TSDF/end-users.<br>• As per CCA AWH-113914 dated 26.07.21 valid upto 15.04.26, the Waste water generation permission is 1291.25 KLD.
<table>
<tr><th>Particular</th><th>Avg of FY 2023-24</th></tr>
<tr><td>Waste water generation</td><td>186.7 KLD</td></tr>
</table>
• The month wise details of water consumption and waste water generation are attached as Annexure-3.<br>• As CPP plant is not implemented, we are purchasing electricity from Torrent power and the DG sets is installed at site as stand by.</td>
</tr>
<tr>
<td>5.0</td>
<td>The sources of air pollution will be flue gas emission & process gas emissions from the stack attached to the boilers , CPP, process vents attached to reactor.</td>
<td>Complied.<br><br>Scrubbers are provided through</td>
</tr>
</table>

| | | |
|---|---|---|
| | The process emissions in the form of HCL, SO2, NH3, and H2S will be scrubbed with water & caustic scrubbers. Tertiary scrubber would also be installed . Before scrubbing the HCL and SO2 to the scrubbers, these gases will be pass through primary and secondary condensers to remove solvents. The gases will be pass through primary and secondary condensers to remove solvents. The gases free from solvents will be trapped in VOC trapped to recover traces of VOC before scrubbing. | condenser. |
| **6.0** | The hazardous wastes generation will be in the form of used / spent oil (5 MTPA) which will be collected, stored, transported & disposed by selling to registered reprocessors. Process waste / waste residue (4000 MTPA) containing pesticides & date expired/off specification products (10 MTPA) will be collected, stored, incinerated at second unit / common incinerator. ETP sludge (7500 MTPA) will be disposed at nearest TSDF site at BEIL, Ankleshwar . Discarded containers (35000 nos. /annum) will be sold to authorized agencies after decontamination & detoxification. Discarded bags / liners (20 MTPA) will be disposed by incineration at second unit / re-use. Distillation residue (100 MTPA) fro, contaminated organic solvents will be incinerated at second unit / common incinerator. | **Complied.**<br>• As per CCA AWH-113914 dated 26.07.21 valid upto 15.04.26, the hazardous waste generation, management and disposal details are attached as **Annexure-4**.<br>• The month-wise details of Hazardous waste generation and disposal are attached as **Annexure-5.** |
| **7.0** | The project activity is listed at 5(b) in the schedule of EIA notification ,2006 and is of 'A' category . The proposal was considered by the expect appraisal committee (l) in its 91 st meeting held on 9th to 11 th February, 2009. The committee recommended the proposal for environmental clearance . As the unit is located in the industrial estate, the public hearing / consultation of the project is not required as per Para 7 (i) –lll (b)- public consolation of EIA notification,2006. | **Noted.** |
| **8.0** | Based on the information submitted by the project authorities, the ministry of environment and forests hereby accords the environmental clearance to the | **Noted.** |

<table>
<tr><td></td><td>above project under the provisions of EIA Notification dates 14th September, 2006 subject to compliance of the following specific and general conditions:</td><td></td></tr>
<tr><td>A</td><td colspan="2">SPECIFIC CONDITIONS</td></tr>
<tr><td>I</td><td>The effluent generation shall not exceed 1266.25m3/d. The effluent shall be segregated based on their bio-degradability. The high TDS effluent generated from the process shall be evaporated. The condensate from the evaporator shall be condensed and recycled to process / scrubber or sent to ETP. After recovery of solvent from mother liquor water shall be sent to ETP. The treated effluent shall meet the industry specific discharge standards. The biodegradable effluent after primary secondary and tertiary treatment shall be sent to guard pond for bioassay test before discharging into GIDC sewer for final disposal into deep sea.</td><td>Complied.<br><br>• As per CCA AWH-113914 dated 26.07.21 valid upto 15.04.26, the Waste water generation permission is 1291.25 KLD.<br><table><tr><td>Particular</td><td>Avg of FY 2023-24</td></tr><tr><td>Waste water generation</td><td>186.7 KLD</td></tr></table>• Unit is monitoring the final treated effluent regularly. Moreover, third party agency is also monitoring periodically.<br>• The results are found within the prescribed permissible limits.<br>• The Monitoring results are attached as Annexure-6.</td></tr>
<tr><td>II</td><td>The company shall undertake water conservation measures to minimize the fresh water conservation.</td><td>Complied.<br>• Unit is implementing best practices to minimum usage of fresh water.<br>• Unit has installed RO system after the secondary treatment. The permeate is recycled in industrial purposes.</td></tr>
<tr><td>III</td><td>The unit shall carry out the monitoring for all pesticides in the ground water. Results shall be submitted to the Ministry and Ministry's Regional Office at Bhopal.</td><td>Complied.<br><br>The results are attached as Annexure-7.</td></tr>
<tr><td>IV</td><td>The gaseous emissions (SO2, NOx, HCl, HC, NH3, Cl2, H2S and VOC) along with SPM and RSPM from</td><td>Complied.</td></tr>
</table>

| | | |
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| | various process units and work environment shall be monitored regularly and shall conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. | • As per the given permissible limits in CC&A, process gas stack monitoring done through third party agency. The results are found well within the limits.<br>• The Monitoring results are attached as **Annexure-8.** |
| **V** | Flue gas emissions from the CPP, Boilers, DG sets shall be dispersed through stack of height as per CPCB standards. Acoustic enclosures shall be provided to the DG sets to mitigate noise pollution. | **Complied.**<br>• As per the given permissible limits in CC&A, process gas stack monitoring done through third party agency. The results are found well within the limits.<br>• The Monitoring results are attached as **Annexure-9.**<br>• Acoustic enclosures is provided to the DG sets to reduce the noise pollution. |
| **VI** | The company shall provide the monitoring arrangement with all the vents for monitoring of (SO2, NOx, HCI, HC, NH3, Cl2, H2S and VOC) along with PM, SPM and RSPM and reports shall be submitted to the SPCB, CPCB and Ministry's Regional Office at Bhopal. | **Complied.**<br>• As per the given permissible limits in CC&A, process gas stack monitoring done through third party agency. The results are found well within the limits.<br>• The Monitoring results are attached as **Annexure-8.** |
| **VII** | Standards notified for pesticides unit under the Environment (Protection) Act, 1986 and amended time to time shall be followed by the Unit. | **Complied.**<br>• Unit is following all the rules and regulations as amended. |
| **VIII** | The height of stacks shall be as per the CPCB guidelines. For control of process emissions like HCI, SO2, NH3, Cl2 and H2S etc. high efficiency water and caustic scrubbers with dual chamber shall be provided. | **Complied.**<br>• Adequate height is provided with SMF with required APCM. |
| **IX** | The project authorities shall provide the chilled brine | **Complied.** |

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| | solution in secondary condenser for condensation of the VOCs. The project authority shall ensure that the solvent recovery shall not be less than 95%. The VOC monitoring shall be carried in the solvent storage area and data submitted to the Ministry. | • Unit has provided Chilled brine circulation system is provided to condensate solvent vapors and reduce solvent losses. |
| **X** | Solvent management shall be as follows :<br>A. Reactor shall be connected to chilled brine condenser system<br>B. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.<br>C. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery<br>D. Solvents shall be stored in a separate space specified with all safety measures.<br>E. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.<br>F. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. | **Complied.**<br><br>unit has provided the following solvent management methods which is given below:<br><br>A. The entire manufacturing activities & distillation process within the unit are carried out in totally closed system and Chilled brine circulation for vapor condensation<br>B. Reactor and solvent handling pump having mechanical seal to prevent leakages.<br>C. The condensers are provided with the sufficient HTA and residence time to achieve more than 95% recovery<br>D. Separate space for storage of solvents is provided with all safety measures under PESO premises.<br>E. Proper earthling is provided in all the electrical equipment wherever solvent handling is done.<br>F. Entire plants are flame proof. The solvent storage tanks provided with breather valve to prevent losses. |
| **XI** | Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be | **Complied.** |

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| | regularly monitored. The emissions shall conform to the limits imposed by MPCB. | • Work area monitoring is done by 3rd party.<br>• The results are attached as **Annexure-10.** |
| **XII** | For control of fugitive emission and VOCs following steps shall be followed :<br>1. Closed handling system shall be provided for chemicals<br>2. Reflux condenser shall be provided over reducer<br>3. Solvent handling pump shall be provided with mechanical seals to prevent leakages<br>4. System of leak detection and repair of pump/pipeline based on preventive maintenance.<br>5. Solvent shall be taken from underground storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water. | **Complied.**<br>• Closed handling system and Seal-less pumps/Mechanical seal are provided for hazardous/toxic chemical handling.<br>• LDAR (Leak Detection And Repairs) system is being followed to reduce VOC / HC emission.<br>• VOC monitoring is being carried out through third party. |
| **XIII** | Use of toxic solvents like Methylene Chloride (M.C.) etc. shall be minimized to the extent possible. Benzene shall not be used as solvent and no odorous compounds/gas like Mercaptans or Hydrogen Sulfide shall be used or formed in any of reactions at the site. | **Complied.**<br>• Unit is not using Methylene Chloride OR Benzene or Mercaptan at the site. |
| **XIV** | All the storage tanks shall be under negative pressure to avoid any leakages. Breathers, N2 blanketing and condensers will be provided for all the storage tanks. Closed handling systems for chemicals and solvents will be provided. Magnetic seals will be provided for pumps/agitators for reactors for reduction of fugitive emissions. Chilled Brine based condensers shall be used to prevent VOC emissions. Solvent traps shall be installed wherever necessary. | **Complied.**<br>• Nitrogen blanketing is used for certain material storages.<br>• Breather valves are provided for solvent storages wherever necessary. Closed handling system and Seal-less pumps/Mechanical seal are provided.<br>• Solvent traps/ Condensers are provided. Chilled Brine system is provided for VOC emission control. VOC monitoring is being carried out through third party. |
| **XV** | All venting equipment shall have vapour recovery | **Complied.** |

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| | system. All the pumps and other equipment's where there is a likelihood of HC leakages shall be provided with Leak Detection and Repair (L.DAR) system and LEL indicators and Hydrocarbon detectors. Provision for immediate isolation of such equipment, in case of a leakage will also be made. The company shall provide a well defined Leak Detection and Repair (LDAR) programme for quantification and control of fugitive emissions. The detectors sensitivity will be in ppm levels. | • LDAR (Leak Detection And Repairs) system is being followed to reduce VOC / HC emission. |
| **XVI** | During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic waste and storm drains. | **Complied.**<br>• Transfer of material is done under supervision. |
| **XVII** | The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management, Handling and Trans Boundary Movement ) Rules, 2008. Authorization from the SPCB_ shall be obtained for collections/treatment/ storage/disposal of hazardous wastes. | **Complied.**<br>• CCA AWH-113914 dated 26.07.21 valid upto 15.04.26 is obtained from GPCB.<br>• The copy of the same is attached as **Annexure-11**. |
| **XVIII** | The company shall make adequate arrangement for control of odour nuisance from the plant premises. There shall be no odour from the unit. | **Complied.** |
| **XIX** | Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. | **Complied.**<br>• Periodical health check up is done every Six monthly and the records for the same is maintained.<br>• The health reports are attached as **Annexure-12**. |
| **XX** | The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. | **Complied.**<br>• Fire hydrant line is installed at every plant premises. |
| **XXI** | Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre- | **Complied.** |

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| | employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted. | • Training is imparted to all employees while joining the organization and through refresher courses on safety, health and environment.<br>• There is Safety Talk every day which includes different themes on safety, health and environmental aspects.<br>• Unit has obtained Accreditation of ISO 45001:2018 & ISO 14001:2015.<br>• Pre employment and routine periodical medical examination for all employees has been conducted annual and six month basis.<br>• Training on various safety aspects has been given to all employees. Moreover, Safety week / World Environment Day is celebrated every year in order to sensitize all employees. |
| **XXII** | Usage of PPEs by all employees/ workers shall be ensured. | **Complied.**<br>• It is observed that PPEs are given to each employee and worker as per the requirement. |
| **XXIII** | The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP) for pesticide units. | **Complied.**<br>• The Company has spent for environmental protection measures along with the projects implemented. The revenue expenditure for environmental protection measures is included in budget and sufficient amount is available. |

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| **XXIV** | The project authorities shall develop greenbelt in 33% of project area as per the guidelines of CPCB to mitigate the effect of fugitive emission. | **Complied.**<br>• Existing land area is 83110.70 sqm. We have allotted greenbelt in an area of 32123 sqm covering 38% of total project area.<br>• 12000 m2 of land is also developed at Kosamdi Village which is located near Ankleshwar which approximately 65 kms away from our site. |
| **XXV** | The recommendations made in the EIA/EMP/Risk assessment study — shall be complied with. | **Complied.** |
| **B** | **GENERAL CONDITIONS** | |
| **I** | The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body. | **Noted.** |
| **II** | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any. | **Complied.**<br>• Unit has not started any expansion /Modification in the plant for increasing the capacity of product without approval of MoEF&CC /SPCB.<br>• For any modernization/product mix change we have applied to state pollution control board and obtain product mix change CTE/CC&A. |
| **III** | The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended. Authorization from the SPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes. | **Complied.**<br>• Unit is complying all rules and regulations as per MSIHC Rules and Hazardous waste rule & their amendments from time to time.<br>• Unit has obtained authorization |

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| | | from SPCB. |
| **IV** | Ambient air quality monitoring stations shall be set up in the downwind direction as well as where maximum ground level concentration are anticipated in consultation with the State Pollution Control Board. | **Complied.**<br>• Ambient Air monitoring stations are in upwind and downward direction. |
| **V** | For control of process emissions, stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided. The scrubbed water shall be sent to ETP for further treatment. | **Complied.**<br>• SMF is as per rules. And the blow down is treated in ETP. |
| **VI** | The company shall undertake following Waste Minimization measures :-<br>• Metering of quantities of active ingredients to minimize waste.<br>• Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.<br>• Maximizing recoveries<br>• Use of automated material transfer system to minimize spillage.<br>• Use of "Closed Feed" system into batch reactors. | **Complied.**<br>• Hazardous waste is being monitored on daily basis and report is being sent to top management.<br>• Unit has also adopted automated system for filling and packing. Also, closed loop system is used in reactors to minimize wastage.<br>• All venting of equipment are connected to condensors/ process Scrubbers to scrub excess vapour.<br>• Unit is using high pressure hose system for equipment cleaning. |
| **VIII** | The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time). | **Complied.**<br>• Noise monitoring done through third party agency. The results are found well within the limits.<br>• The Monitoring results are attached as **Annexure-13.** |
| **IX** | A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the environmental management and monitoring functions. | **Complied.**<br>• Unit has separate Environmental Management Cell. Which |

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| | | working on improving in environmental performance by converting waste streams into valuable products, improving ETP performance etc.<br>• Water, VOC, Noise Level Monitoring are carried out in our internal laboratory.<br>• Also, Environmental Audit is being carried out regularly & the report is submitted to GPCB. |
| **X** | The adequate financial provisions shall be made in the budget of the project for implementation of the above suggested environmental safeguards. Fund so earmarked shall not be diverted for any other purposes. | **Complied.**<br>• The revenue expenditure for environmental protection measures is included in our budget and sufficient amount is available. |
| **XI** | The project authorities shall provide rainwater harvesting system and ground water recharge. | **Complied.**<br>• Unit is collecting the rain water from Roof Top area and reuse for gardening/nearby cooling tower.<br>• Unit do not recharge ground water. |
| **XII** | The implementation of the project vis-a-vis environmental action plans shall be monitored by Ministry's Regional Office /SPCB / CPCB. A six monthly compliance status report shall be submitted to monitoring agencies. | **Complied.**<br>• Unit is submitting the half yearly compliance report regularly to the MoEF&CC/SPCB/CPCB. |
| **XIII** | The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local | **Complied.**<br>Unit had given advertisement at the time of approval. |

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| | newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Ministry's Regional Office. | |
| **XIV** | The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project. | **Complied.** |
| **9.0** | The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory. | **Noted.** |
| **10.0** | The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions. | **Noted and shall be complied.** |
| **11.0** | Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997. | **Noted.** |
| **12.0** | The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous Wastes (Management, Handling and Trans Boundary) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules. | **Complied.**<br>• Unit is complying all the said rules and regulations as per & their amendments from time to time.<br>• Unit has obtained authorization under Air, Water & Hazard act from SPCB.<br>• Also, Unit have PLI policy valid upto April'25. The policy is attached as **Annexure-14**. |

**N** It is declared that all the information submitted in & with respect to this format by us is correct and for any lapse regarding incorrect information or not giving complete information we are responsible for that.

| | | | |
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| **A** | **Name & Signature of the recognized person of the Industry/Organization Institute with stamp** | | **Signature** |
| 1. | **Mr. Balkrishn Patidar**<br>Unit Head – Operations | | |
| 2. | **Mr. Suhash Salunkhe**<br>Senior Manager- Production | | |
| 3. | **Mr. M Balamurugan**<br>Assistant General Manager-Head Eng. | | |
| 4. | **Mr. Ratnadeep Patel**<br>Manager- EHS | | |
| **B** | **Name & Signature of Team members, Department of Civil Engineering** | | **Signature** |
| 1 | **Dr. Savan Tank**<br>Co-ordinator | | |
| 2 | **Dr. Parwathi Pillai**<br>Chemical Engineer | | |
| 3 | **Ms. Brinda Govani**<br>Environmental Engineer | | |
| 4 | **Ms. Apeksha Brahmbhatt**<br>Microbiologist | | |
| The Environment Management System Adequacy Efficacy Certificate | | : | Attached |

quality of effluents (Air + Wastewater + Solid Waste) as specified in Consent/Notifications by GPCB, Gandhinagar for the following quantity of waste generation.

**d) Liquid effluent** : 186.70 KL/Day

**e) Solid waste** :

| No. | Type of Waste | Category * | Quantity MT/Y |
|---|---|---|---|
| 1 | Used spent Oil | 5.1 | 5 MT/Y |
| 2 | Process waste | 29.1 | 4000 MT/Y |
| 3 | ETP Sludge | 35.3 | 7500 MT/Y |
| 4 | Date expired and off specification pesticides | 29.3 | 10 MT/Y |
| 5 | Discarded Containers | 33.1 | 35000 Nos/Y |
| 6 | Discarded bags/liners | 33.1 | 20 MT/Y |
| 7 | Distillation residue from contaminated organic solvents | 36.1 | 100 MT/Y |

*Category 5.1,29.1,35.3,29.3,36.1shall be disposed to M/S BEIL/SEPPL/RSPL & 33.1 to Regd. Recyclers.

**f) Air Emission (Flue gas stack as well as process stacks)** : Adequate efficacious Pl. refer Annexure - XV

This certificate is valid for the audit period only. However, it is subject to automatic cancellation in case of any change in product profile/capacity, quality & quantity of effluents (Air + Water + Solid/Hazardous) and efficiency of EMS equipment.

This certificate forms part of the Environmental Audit report.

Date:
Place: Gandhinagar

**Name & Address of the Auditor:**
Swarrnim Institute of Technology
Swarrnim Startup and Innovation University, Gandhinagar

**Signature of the Authorized Person**

**(Dr. Savan Tank)**
**Coordinator**
**Environmental Audit Team**

Swarrnim Startup & Innovation University Gandhinagar

| Sr. No | List of Products | Quantity (MT/A) |
|---|---|---|
| 1 | Metribuzin | 4000 |
| 2 | Pendimethylene | 5000 |
| 3 | Hexaconazole | 500 |
| 4 | Propiconazole | 100 |
| 5 | Tebuconazole | 500 |
| 6 | Metconazole | 1000 |
| 7 | Metalaxyl | 200 |
| 8 | Metalaxyl-M | 200 |
| 9 | Allyl alcohol | 2750 |
| 10 | Atorvastratin | 5 |
| 11 | Pentoxazone | 50 |
| 12 | Flumetrain | 25 |
| 13 | Gy-250 (bisphenol-a-epoxy resin) | 100 |
| 14 | Probenazole | 50 |
| 15 | Valsartan | 10 |
| 16 | Pekk | 500 |
| 17 | Difenoconazole | 500 |
| 18 | Dimethomorph | 500 |
| 19 | Myclobutanil | 100 |
| 20 | Propineb | 100 |
| 21 | Thiamethoxam | 100 |
| 22 | Epoxyconazole | 300 |
| 23 | Azoxystrobin | 100 |
| 24 | Bispyribac sod. | 300 |
| 25 | Cartop hydrochloride | 1000 |
| 26 | Azimsulfuron | 100 |
| 27 | Kresoxim methyl | 100 |
| 28 | Trifloxystorbin | 200 |
| 29 | Imibenconazole | 200 |
| 30 | Tricyclozole | 200 |
| 31 | Aromatic Ketone | 200 |
| 32 | ( 2- 4-phenylbenzoyl)benzoic acid | 130 |
| 33 | KM 119 | 150 |
| 34 | Benfuresate | 200 |
| 35 | Benzofenap | 200 |
| 36 | Triazolinone | 1000 |
| 37 | Quizalofop | 100 |
| 38 | Flumioxazine | 100 |
| 39 | Thiophanat Methyl | 700 |

| | | |
|---|---|---|
| 40 | Iprovalicarb | 150 |
| 41 | Fenoxaprop-P –ethyl | 100 |
| 42 | Imidachloropid | 200 |
| 43 | Pinacolone | 1990 |
| 44 | Amicarbazone | 1000 |
| 45 | 6 FMI | 100 |
| 46 | Dimoxystrobin | 10 |
| 47 | Orysastrobin | 10 |
| 48 | Atrazine | 1200 |
| 49 | Fluoxastrobin | 100 |
| 50 | Fenoxycarb | 100 |
| 51 | Cyproconazole | 100 |
| 52 | Diafenthiuron | 100 |
| 53 | Fipronil | 100 |
| 54 | Thiamethoxam-M | 100 |
| 55 | Metsulfuron | 100 |
| 56 | Clodinafop | 100 |
| 57 | Chlorimuron | 100 |
| 58 | Pyrazosulfuron | 100 |
| 59 | Propaquizafop | 100 |
| 60 | 3-Amino pentane | 2000 |
| 61 | Bis-stearylformal (BSF) | 100 |
| 62 | Pyraftalid | 250 |
| 63 | Propargyl-ABO | 500 |
| 64 | MOAT ( N-methoxy-1-(2,4,6-trichlorophenyl propan)-2-amine | 500 |
| 65 | Caprolactam disulphide | 400 |
| 66 | Cologne | 1500 |
| 67 | Cyclopropylacetylene | 1200 |
| 68 | 4-Chloro-2-(trifluoroacetyl)aniline hydrochloride | 1200 |
| 69 | Guanine | 1500 |
| 70 | N,O-Dimethyl-N'-nitrosourea | 600 |
| 71 | Tetrachlorovinphos | 600 |
| 72 | Amitrol | 1000 |
| 73 | Aclonifen | 500 |
| 74 | Pilot Plant (R&D Products Only) | 10 |
| **Formulation** | | |
| 1 | Pesticide Formulation (Solid) | 5000 |
| 2 | Pesticide Formulation (Liquid) | 5000 |

| Production details | | | | | | |
|---|---|---|---|---|---|---|
| **Month** | **Pendimethylene** | **Metribuzin** | **Difenoconazole** | **Imibenconazole** | **Pesticides Formulation (MT)** | **Pesticides Formulation (KL)** |
| Apr-23 | 163.46 | 59.60 | 0.00 | 0.00 | 0.00 | 85.00 |
| May-23 | 456.56 | 141.30 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jun-23 | 443.04 | 50.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| Jul-23 | 452.15 | 87.20 | 0.00 | 0.00 | 8.02 | 32.00 |
| Aug-23 | 436.41 | 155.60 | 4.53 | 0.00 | 0.00 | 48.00 |
| Sep-23 | 437.24 | 100.20 | 12.75 | 0.00 | 0.00 | 16.00 |
| Oct-23 | 465.16 | 37.50 | 8.35 | 0.00 | 5.04 | 48.00 |
| Nov-23 | 366.36 | 0.00 | 0.00 | 0.00 | 0.00 | 80.00 |
| Dec-23 | 25.94 | 35.40 | 0.00 | 2.93 | 4.03 | 96.00 |
| Jan-24 | 302.55 | 0.00 | 0.00 | 6.34 | 0.00 | 16.00 |
| Feb-24 | 398.20 | 74.20 | 0.00 | 5.95 | 0.00 | 32.00 |
| Mar-24 | 212.20 | 129.20 | 0.00 | 4.83 | 11.52 | 0.00 |
| Total | 4159.28 | 870.70 | 25.62 | 20.05 | 28.61 | 453.00 |
| AVG/Month | 346.61 | 72.56 | 2.14 | 1.67 | 2.38 | 37.75 |
| AVG/Day | 11.40 | 2.39 | 0.07 | 0.05 | 0.08 | 1.24 |

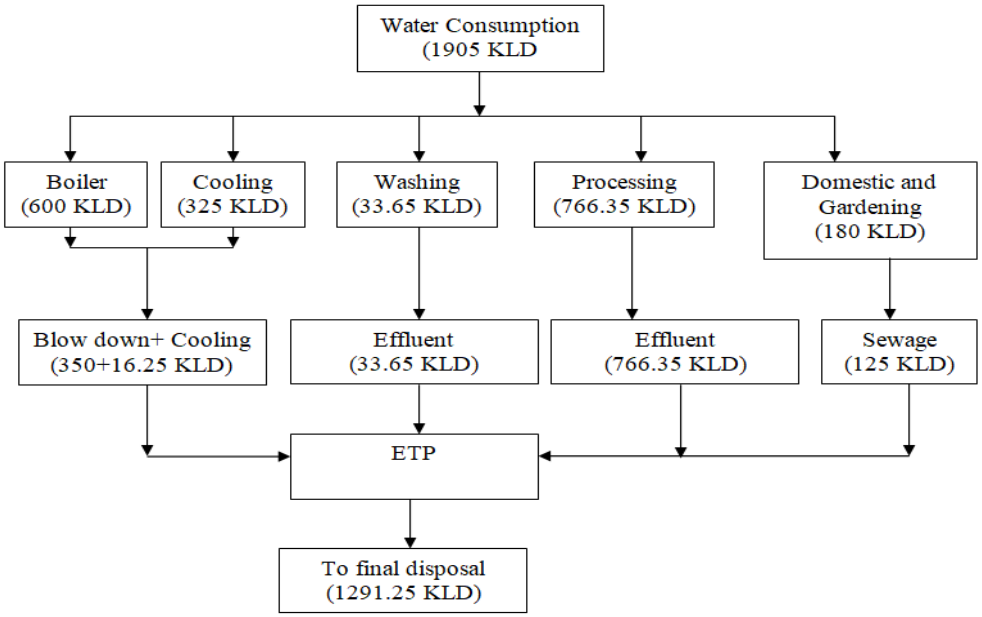
| By-product Details (MT) | | |
|---|---|---|
| **Month** | **Spent Sulfuric acid** | **Sodium Sulphate** |
| Apr-23 | 217.47 | 0.00 |
| May-23 | 863.27 | 0.00 |
| Jun-23 | 722.10 | 74.69 |
| Jul-23 | 860.74 | 103.19 |
| Aug-23 | 767.41 | 132.14 |
| Sep-23 | 673.89 | 74.77 |
| Oct-23 | 790.64 | 214.92 |
| Nov-23 | 590.30 | 113.88 |
| Dec-23 | 303.40 | 114.21 |
| Jan-24 | 471.72 | 40.19 |
| Feb-24 | 682.85 | 60.83 |
| Mar-24 | 453.69 | 179.71 |
| Total | 7397.48 | 1108.53 |
| AVG/Month | 616.46 | 92.38 |
| AVG/Day | 20.27 | 3.04 |

| Total Water Consumption | | | |
|---|---|---|---|
| **Month** | **Raw water from GIDC** | **Recycled Water** | **Total water consumption** |
| Apr-23 | 14189.00 | 3176.39 | 17365.39 |
| May-23 | 16216.00 | 3539.43 | 19755.43 |
| Jun-23 | 11937.00 | 3962.71 | 15899.71 |
| Jul-23 | 12210.00 | 5770.29 | 17980.29 |
| Aug-23 | 14247.00 | 8362.39 | 22609.39 |
| Sep-23 | 11598.00 | 7711.41 | 19309.41 |
| Oct-23 | 10968.00 | 5727.48 | 16695.48 |
| Nov-23 | 11573.00 | 3887.76 | 15460.76 |
| Dec-23 | 9596.00 | 2896.77 | 12492.77 |
| Jan-24 | 10260.00 | 2990.98 | 13250.98 |
| Feb-24 | 13089.00 | 4924.05 | 18013.05 |
| Mar-24 | 15000.00 | 6337.85 | 21337.85 |
| **Total** | 150883.00 | 59287.51 | 210170.51 |
| AVG/Month | 12573.58 | 4940.63 | 17514.21 |
| AVG/Day | 413.38 | 162.43 | 575.81 |
| Water Consumption/ MT of product | 37.819 | | |

**Average fresh water consumption over the last three years:**

| Year | Total | Average water Consumption ($m^3$/Day) |
|---|---|---|
| 2021-22 | 143953 | 425.43 |
| 2022-23 | 159467 | 436.90 |
| 2023-24 | 150883 | 413.38 |

## WATER BALANCE DIAGRAM



| Waste water Generation | |
|---|---|
| **Month** | Unit in KL (Industrial+Domestic) |
| Apr-23 | 3999.00 |
| May-23 | 5297.00 |
| Jun-23 | 4497.00 |
| Jul-23 | 6138.00 |
| Aug-23 | 7148.00 |
| Sep-23 | 7522.00 |
| Oct-23 | 6411.00 |
| Nov-23 | 5662.00 |
| Dec-23 | 4298.00 |
| Jan-24 | 5193.00 |
| Feb-24 | 5763.00 |
| Mar-24 | 6218.00 |
| **Total** | 68146.00 |
| AVG/Month | 5678.83 |
| AVG/Day | 186.70 |

Average wastewater generation over the last three years:

| Year | Total | Average Wastewater Generation ($m^3$/day) |
|---|---|---|
| 2021-22 | 46867 | 135.38 |
| 2022-23 | 57917 | 160.88 |
| 2023-24 | 68146 | 186.70 |

| Sr. No. | Haz Waste Name | CCA Category | Quantity (MT/A) | Mode of Disposal |
|---|---|---|---|---|
| 1 | Used/ Spent Oil | S.1 | 5 | Collection, Storage, Transportation & Disposal by reuse selling to registered re-refiner. |
| 2 | Process Waste | 29.1 | 4000 | Collection, Storage, Transportation & Disposal to Common incineration at BElL/SEPPL or co- processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 3 | ETP Sludge | 35.3 | 7500 | Collection, Storage, Transportation & Disposal to Common TSDF at BEI L/SEPPL or co- processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 4 | Date-expired and off - specification pesticides | 29.3 | 10 | Collection, Storage, Transportation & Disposal to Common incineration at BEIL/SEPPL or co- processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 5 | Discarded Containers | 33.1 | 35000 Nos | Collection, Storage, decontamination, Transportation , Disposal by selling to authorized decontamination facility or common facility of BEIL, Dahej |
| 6 | Discarded bags/ liners | 33.1 | 20 | Collection, Storage, Decontamination, Transportation, Disposal by selling to authorized decontamination facility or common facil ity of BEIL, Dahej |
| 7 | Distillation residue from contaminate organic solvents | 36.1 | 100 | Collection, Storage, Transportation & Disposal to Common incineration at BEIL/SEPPL or co- processing at Ultra Téch Cement limited, Shree Cement or pre-processing at RSPL, GSPL |

| | | | | |
|---|---|---|---|---|
| 8 | Spent Sulfuric Acid About (30%) | 29.6/B-15 | 12000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU.<br><br>Optional Mode - Shall be sent to Common MEEs facility. (DIPL & BEIL), Co processing units and Inhouse Neutralization on need basis. |
| 9 | Spent Acid (35%) | 29.6/B-15 | 3000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU.<br>Optional Mode - Shall be sent to Common MEEs facility. (DIPL & BEIL), Co processing units and Inhouse Neutralization on need basis. |
| 10 | NaHS Solution (20%) | B-37 | 718 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 11 | Sodium Sulfate | B-36 | 3000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 12 | Sodium Sulphite | B-15/B-23/B-36 | 800 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |

| | | | | |
|---|---|---|---|---|
| 13 | Sodium Bi Sulphate | B-23 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 14 | Ammonium Chloride | A-10/B-15 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 15 | Ammonium Sulphate | A-10/B-15 | 500 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 16 | HCl Solution | 29.6/B-15 | 1650 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 17 | AlCl3 Solution | B-10 | 2820 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 18 | Recovered Solvent | 29.4/B-28 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 19 | Ammonium Acetate | A-10/B-15 | 400 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |

| | | | | |
|---|---|---|---|---|
| 20 | Spent KOH | B-32 | 100 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 21 | Spent Acetic Acid | 29.6/B-15 | 700 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 22 | Sodium Iodide | B-18 | 300 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 23 | Potassium Sulphate | B-36 | 300 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 24 | Potassium chloride | B-36 | 1260 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 25 | Sodium Chloride | B-36 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 26 | Sodium Phosphate | B-35 | 1200 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |

| | | | | |
|---|---|---|---|---|
| 27 | Phosphoric Acid | 29.6/B-15 | 950 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |
| 28 | Sodium Nitrate | B-36 | 920 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule 09 permission to receive this waste after making MoU. |

**Hazardous waste Generation, treatment and Disposal**

| Sr.No | Description of waste | Cat No | Remarks |
|---|---|---|---|
| 1 | Wastes/residues containing Pesticides | 29.1 | Co-process/ Recycler (RSPL/ GEPIL) |
| 2 | Chemical sludge from waste water treatment | 35.3 | TSDF (BEIL/SEPPL/Digvijay) |
| 3 | Discarded containers/ barrels contaminated with Hazardous Wastes/Chemicals (Nos) | 33.1 | Recycler (BEIL/ GEPIL /Tulsi Enterprise/RSPL) |
| 4 | Discarded Bags/Liners | 33.1 | Recycler (BEIL/ GEPIL /Tulsi Enterprise/RSPL) |
| 5 | Distillation Residues from Contaminated Organic Solvents | 36.1 | Recycler (RSPL) |
| 6 | Spent Sulphuric Acid | 29.6 | End-user (Ferric/Novel/KSF) |
| 7 | Sodium Sulphate | B36 | End-user (Preet/Destiny) |

| Hazardous waste Generation, treatment and Disposal | | | | | | | | | By-product Details (MT) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Category 5.1 | | Category 29.1 | | Category 35.3 | | Category 33.1 | | Category 29.6 | | Category B36 | |
| | Used Oil | | Pro. Waste (MT) | | ETP Sludge (MT) | | Dis. Cont (Nos.) | | SPENT SULFURIC ACID (MT) | | SODIUM SULPHATE MT) | |
| | G | D | G | D | G | D | G | D | G | D | G | D |
| Apr-23 | 0.00 | 0.00 | 62.00 | 61.53 | 242.00 | 242.23 | 720.00 | 718.00 | 217.00 | 161.17 | 0.00 | 0.00 |
| May-23 | 0.00 | 0.00 | 94.00 | 94.11 | 490.00 | 490.43 | 560.00 | 556.00 | 863.00 | 856.77 | 0.00 | 0.00 |
| Jun-23 | 0.00 | 0.00 | 75.00 | 74.89 | 99.00 | 98.83 | 430.00 | 424.00 | 722.00 | 722.10 | 75.00 | 74.69 |
| Jul-23 | 0.00 | 0.00 | 51.00 | 51.29 | 88.00 | 87.49 | 890.00 | 884.00 | 860.00 | 860.74 | 103.00 | 103.19 |
| Aug-23 | 0.00 | 0.00 | 60.00 | 59.62 | 130.00 | 129.61 | 60.00 | 54.00 | 767.00 | 767.41 | 135.00 | 132.14 |
| Sep-23 | 0.00 | 0.00 | 68.00 | 68.06 | 46.00 | 45.91 | 860.00 | 864.00 | 675.00 | 673.89 | 75.00 | 74.77 |
| Oct-23 | 0.00 | 0.00 | 112.00 | 111.63 | 370.00 | 368.12 | 1440.00 | 1440.00 | 760.00 | 790.64 | 215.00 | 214.92 |
| Nov-23 | 0.00 | 0.00 | 96.00 | 96.46 | 120.00 | 120.42 | 1135.00 | 1131.00 | 590.00 | 590.30 | 115.00 | 113.88 |
| Dec-23 | 0.00 | 0.00 | 36.00 | 35.63 | 109.00 | 109.06 | 200.00 | 200.00 | 305.00 | 303.40 | 115.00 | 114.21 |
| Jan-24 | 0.00 | 0.00 | 76.00 | 75.97 | 104.00 | 104.34 | 300.00 | 300.00 | 470.00 | 471.72 | 40.00 | 40.19 |
| Feb-24 | 0.00 | 0.00 | 77.00 | 77.32 | 100.00 | 99.78 | 0.00 | 0.00 | 685.00 | 682.85 | 60.00 | 60.83 |
| Mar-24 | 0.00 | 0.00 | 33.00 | 33.39 | 111.00 | 111.28 | 440.00 | 432.00 | 455.00 | 453.69 | 180.00 | 179.71 |
| Total | **0.00** | **0.00** | **840.00** | **839.90** | **2009.00** | **2007.50** | **7035.00** | **7003.00** | **7369.00** | **7334.68** | **1113.00** | **1108.53** |
| AVG/Month | 0.00 | 0.00 | 70.00 | 69.99 | 167.42 | 167.29 | 586.25 | 583.58 | 614.08 | 611.22 | 92.75 | 92.38 |
| AVG/Day | 0.00 | 0.00 | 2.30 | 2.30 | 5.50 | 5.50 | 19.27 | 19.19 | 20.19 | 20.10 | 3.05 | 3.04 |

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015 Certified Company
(GPCB RECOGNIZED SCHEDULED - II ENVIRONMENTAL AUDITOR)
MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate, Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Chemical Analysis Of Water / Waste water

| Report No | ULR-TC765323000003834P | Date of Report | 24.04.2023 |
|---|---|---|---|

### SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | WW/2023/500703 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 18.04.2023 | 5 | Test Requirement | Waste Water Analysis |
| 6 | Analysis Commenced on | 19.04.2023 | 7 | Analysis Completed on | 24.04.2023 |
| 8 | Sample Location | Final Treated Effluent | 9 | Sample Collected By | EET Team |
| 10 | ETP / STP Status: | ETP Running | 11 | Sample Category | Grab |
| 12 | Sampling Procedure | IS 3025 (Part 1) | 13 | Packing Condition & Quantity | Sealed & 10 Lit |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | |

### TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Results | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Temperature | °C | 29.2 | 40 | APHA : (2550 B) 23rd Edition |
| 2 | pH @25 °C | - | 7.50 | 6.5 - 8.5 | APHA : (4500 – $H^+$ B) 23rd Edition |
| 3 | Color | Hazen | 12 | 100 | APHA : (2550 B&C) 23rd Edition |
| 4 | Total Suspended Solid | mg/L | 23.80 | 100 | APHA : (2540 D) 23rd Edition |
| 5 | COD | mg/L | 119.52 | 250 | APHA : (5220 B) 23rd Edition |
| 6 | BOD (3 day at 27 °C) | mg/L | 25.31 | 100 | IS 3025 (Part 44):1993 (Reaffirmed 2014) |
| 7 | Oil & Grease | mg/L | BDL | 10 | APHA : (5520 B) 23rd Edition |
| 8 | Phenolic Compound | mg/L | BDL | 5 | APHA : (5530 D) 23rd Edition |
| 9 | Sulphides | mg/L | BDL | 5 | APHA : (4500 $SO^2$ F) 23rd Edition |
| 10 | Ammonical Nitrogen | mg/L | 12.68 | 50 | APHA : (4500 $NH_3$) 23rd Edition |
| 11 | Total Kjeldahl Nitrogen | mg/L | BDL | 50 | APHA, 23rd Edition 2017/ 4500-Norg –A,B |
| 12 | Nitrate Nitrogen | mg/L | BDL | 50 | APHA : (4500 $NO_3$ )23rd Edition |
| 13 | Phosphate | mg/L | BDL | 5 | APHA, 23rd Edition 2017/ 4500P-D |
| 14 | Chlorides (as Cl) | mg/L | 156.73 | 1000 | APHA : (4500 Cl B) 23rd Edition |
| 15 | Sulphates | mg/L | 148.21 | 1000 | APHA : (4500 $SO_4^{-2}$ E) 23rd Edition |
| 16 | Cyanides | mg/L | BDL | 0.2 | APHA : (4500 $CN^-$ E) 23rd Edition |
| 17 | Fluorides | mg/L | BDL | 1.5 | APHA : (4500 $F^-$ D) 23rd Edition |
| 18 | Hexavalent Chromium | mg/l | BDL | 0.1 | APHA : (3500 Cr) 23rd Edition |
| 19 | Trivalent Chromium | mg/L | BDL | 2 | APHA : (3500 Cr) 23rd Edition |
| 20 | Total Chromium | mg/L | BDL | 0.05 | APHA : (3500 Cr ) 23rd Edition |
| 21 | Copper | mg/L | BDL | 3 | APHA : (3500 Cu A) 23rd Edition |
| 22 | Nickle | mg/L | BDL | 3 | APHA : (3500 Ni) 23rd Edition |
| 23 | Zinc | mg/L | BDL | 15 | APHA : (3500 Zn A) 23rd Edition |
| 24 | Mercury | mg/L | BDL | 0.01 | APHA : (3500 Hg A) 23rd Edition |
| 25 | Lead | mg/L | BDL | 0.1 | APHA : (3500 pb A) 23rd Edition |
| 26 | Arsenic | mg/L | BDL | 0.2 | APHA : (3500 As A) 23rd Edition |
| 27 | Cadmium | mg/L | BDL | 0.05 | APHA : (3500 cd A) 23rd Edition |
| 28 | Selenium | mg/L | BDL | 0.05 | APHA : (3500-Se B) 23rd Edition |
| 29 | Vanadium | mg/L | BDL | 0.2 | APHA 23rd Edition, 3500 V-B |
| 30 | Iron as Fe | mg/L | BDL | 3 | APHA, 23rd Edition 2017/3500-Fe-B |
| 31 | Manganese as Mn | mg/L | BDL | 2 | IS 3025 (Part 59):2006 (Reaffirmed 2009) |
| 32 | Insecticide / Pesticide | mg/L | Absent | Absent | USEPA 3510 & 8141 A, 8181A |
| 33 | Bio – Assay Test | % | 100 | 90% Survival of fish after 96 hrs. in 100% Effluent | IS 6582 (Part 2):2001 (Reaffirmed 2007) |

[ND – Not Detect, BDL – Below Detection Limit]

Note: 1).Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D. Mukherjee
Analysed By

Checked By

Eco Earth Technologies Ankleshwar 24/04/2023
Authorized Signatory

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(Analytical Laboratory Division)
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MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate, Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Chemical Analysis Of Water / Waste water

| Report No | EET225823000014113 | Date of Report | 03.01.2024 |
|---|---|---|---|

### SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | WW/2023/502168 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 26.12.2023 | 5 | Test Requirement | Waste Water Analysis |
| 6 | Analysis Commenced on | 27.12.2023 | 7 | Analysis Completed on | 03.01.2024 |
| 8 | Sample Location | Final Treated Effluent | 9 | Sample Collected By | EET Team |
| 10 | ETP / STP Status: | ETP Running | 11 | Sample Category | Grab |
| 12 | Sampling Procedure | IS 3025 (Part 1) | 13 | Packing Condition & Quantity | Sealed & 10 Lit |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | |

### TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Results | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Temperature | °C | 28.6 | 40 | APHA : (2550 B) 23rd Edition |
| 2 | pH @25 °C | - | 8.06 | 6.5 - 9.0 | APHA : (4500 – $H^+$ B) 23rd Edition |
| 3 | Colour | Hazen | 52 | 100 | APHA : (2550 B&C) 23rd Edition |
| 4 | Total Suspended Solid | mg/L | 21 | 100 | APHA : (2540 D) 23rd Edition |
| 5 | COD | mg/L | 43.64 | 250 | APHA : (5220 B) 23rd Edition |
| 6 | BOD (3 day at 27 °C) | mg/L | 10.58 | 100 | IS 3025 (Part 44):1993 (Reaffirmed 2014) |
| 7 | Oil & Grease | mg/L | 0.21 | 10 | APHA : (5520 B) 23rd Edition |
| 8 | Phenolic Compound | mg/L | BDL | 5 | APHA : (5530 D) 23rd Edition |
| 9 | Sulphides | mg/L | BDL | 5 | APHA : (4500 $SO^2$ F) 23rd Edition |
| 10 | Ammonical Nitrogen | mg/L | 30.35 | 50 | APHA : (4500 $NH_3$) 23rd Edition |
| 11 | Total Kjeldahl Nitrogen | mg/L | 31.18 | 50 | APHA, 23rd Edition 2017/ 4500-Norg –A,B |
| 12 | Nitrate Nitrogen | mg/L | BDL | 50 | APHA : (4500 $NO_3$ )23rd Edition |
| 13 | Phosphate | mg/L | BDL | 5 | APHA, 23rd Edition 2017/ 4500P-D |
| 14 | Chlorides (as Cl) | mg/L | 622.76 | 1000 | APHA : (4500 Cl B) 23rd Edition |
| 15 | Sulphates | mg/L | 252.70 | 1000 | APHA : (4500 $SO_4^{-2}$ E) 23rd Edition |
| 16 | Cyanides | mg/L | BDL | 0.2 | APHA : (4500 $CN^-$ E) 23rd Edition |
| 17 | Fluorides | mg/L | BDL | 15 | APHA : (4500 $F^-$ D) 23rd Edition |
| 18 | Hexavalent Chromium | mg/l | BDL | 0.1 | APHA : (3500 Cr) 23rd Edition |
| 19 | Trivalent Chromium | mg/L | BDL | 2 | APHA : (3500 Cr) 23rd Edition |
| 20 | Total Chromium | mg/L | BDL | 0.05 | APHA : (3500 Cr ) 23rd Edition |
| 21 | Copper | mg/L | BDL | 3 | APHA : (3500 Cu A) 23rd Edition |
| 22 | Nickle | mg/L | BDL | 3 | APHA : (3500 Ni) 23rd Edition |
| 23 | Zinc | mg/L | BDL | 15 | APHA : (3500 Zn A) 23rd Edition |
| 24 | Mercury | mg/L | BDL | 0.01 | APHA : (3500 Hg A) 23rd Edition |
| 25 | Lead | mg/L | BDL | 0.1 | APHA : (3500 pb A) 23rd Edition |
| 26 | Arsenic | mg/L | BDL | 0.2 | APHA : (3500 As A) 23rd Edition |
| 27 | Cadmium | mg/L | BDL | 0.05 | APHA : (3500 cd A) 23rd Edition |
| 28 | Selenium | mg/L | BDL | 0.05 | APHA : (3500-Se B) 23rd Edition |
| 29 | Vanadium | mg/L | BDL | 0.2 | APHA 23rd Edition, 3500 V-B |
| 30 | Iron as Fe | mg/L | BDL | 3 | APHA, 23rd Edition 2017/3500-Fe-B |
| 31 | Manganese as Mn | mg/L | BDL | 2 | IS 3025 (Part 59):2006 (Reaffirmed 2009) |
| 32 | Insecticide / Pesticide | mg/L | Absent | Absent | USEPA 3510 & 8141 A, 8181A |
| 33 | Bio – Assay Test | % | 100 | 90% Survival of fish after 96 hrs. in 100% Effluent | IS 6582 (Part 2):2001 (Reaffirmed 2007) |

[ND – Not Detect, BDL – Below Detection Limit]

**Note:** 1).Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiziya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

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Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate, Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Chemical Analysis Of Water / Waste water

| Report No | EET225824000002871 | Date of Report | 18.03.2024 |
|---|---|---|---|

### SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | WW/2024/500426 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 08.03.2024 | 5 | Test Requirement | Waste Water Analysis |
| 6 | Analysis Commenced on | 09.03.2024 | 7 | Analysis Completed on | 18.03.2024 |
| 8 | Sample Location | Final Treated Effluent | 9 | Sample Collected By | EET Team |
| 10 | ETP / STP Status: | ETP Running | 11 | Sample Category | Grab |
| 12 | Sampling Procedure | IS 3025 (Part 1) | 13 | Packing Condition & Quantity | Sealed & 10 Lit |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | |

### TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Results | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Temperature | °C | 28.6 | 40 | APHA: (2550 B) 23rd Edition |
| 2 | pH @25 °C | - | 7.06 | 6.5 - 9.0 | APHA: (4500 – $H^+$ B) 23rd Edition |
| 3 | Colour | Hazen | 32 | 100 | APHA: (2550 B&C) 23rd Edition |
| 4 | Total Suspended Solid | mg/L | 33.84 | 100 | APHA: (2540 D) 23rd Edition |
| 5 | COD | mg/L | 116.58 | 250 | APHA: (5220 B) 23rd Edition |
| 6 | BOD (3 day at 27 °C) | mg/L | 32.5 | 100 | IS 3025 (Part 44):1993 (Reaffirmed 2014) |
| 7 | Oil & Grease | mg/L | 0.27 | 10 | APHA: (5520 B) 23rd Edition |
| 8 | Phenolic Compound | mg/L | BDL | 5 | APHA: (5530 D) 23rd Edition |
| 9 | Sulphides | mg/L | BDL | 5 | APHA: (4500 $SO^2$ F) 23rd Edition |
| 10 | Ammonical Nitrogen | mg/L | 10.95 | 50 | APHA: (4500 $NH_3$) 23rd Edition |
| 11 | Total Kjeldahl Nitrogen | mg/L | 24.07 | 50 | APHA, 23rd Edition 2017/ 4500-Norg –A,B |
| 12 | Nitrate Nitrogen | mg/L | BDL | 50 | APHA: (4500 $NO_3$ )23rd Edition |
| 13 | Phosphate | mg/L | BDL | 5 | APHA, 23rd Edition 2017/ 4500P-D |
| 14 | Chlorides (as Cl) | mg/L | 612.98 | 1000 | APHA: (4500 Cl B) 23rd Edition |
| 15 | Sulphates | mg/L | 134.86 | 1000 | APHA: (4500 $SO_4^{-2}$ E) 23rd Edition |
| 16 | Cyanides | mg/L | BDL | 0.2 | APHA: (4500 $CN^-$ E) 23rd Edition |
| 17 | Fluorides | mg/L | BDL | 15 | APHA: (4500 $F^-$ D) 23rd Edition |
| 18 | Hexavalent Chromium | mg/l | BDL | 0.1 | APHA: (3500 Cr) 23rd Edition |
| 19 | Trivalent Chromium | mg/L | BDL | 2 | APHA: (3500 Cr) 23rd Edition |
| 20 | Total Chromium | mg/L | BDL | 0.05 | APHA: (3500 Cr) 23rd Edition |
| 21 | Copper | mg/L | BDL | 3 | APHA: (3500 Cu A) 23rd Edition |
| 22 | Nickle | mg/L | BDL | 3 | APHA: (3500 Ni) 23rd Edition |
| 23 | Zinc | mg/L | BDL | 15 | APHA: (3500 Zn A) 23rd Edition |
| 24 | Mercury | mg/L | BDL | 0.01 | APHA: (3500 Hg A) 23rd Edition |
| 25 | Lead | mg/L | BDL | 0.1 | APHA: (3500 pb A) 23rd Edition |
| 26 | Arsenic | mg/L | BDL | 0.2 | APHA: (3500 As A) 23rd Edition |
| 27 | Cadmium | mg/L | BDL | 0.05 | APHA: (3500 cd A) 23rd Edition |
| 28 | Selenium | mg/L | BDL | 0.05 | APHA : (3500-Se B) 23rd Edition |
| 29 | Vanadium | mg/L | BDL | 0.2 | APHA 23rd Edition, 3500 V-B |
| 30 | Iron as Fe | mg/L | BDL | 3 | APHA, 23rd Edition 2017/3500-Fe-B |
| 31 | Manganese as Mn | mg/L | BDL | 2 | IS 3025 (Part 59):2006 (Reaffirmed 2009) |
| 32 | Insecticide / Pesticide | mg/L | Absent | Absent | USEPA 3510 & 8141 A, 8181A |
| 33 | Bio – Assay Test | % | 95 | 90% Survival of fish after 96 hrs. in 100% Effluent | IS 6582 (Part 2):2001 (Reaffirmed 2007) |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

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# Test Report / Certificate

## Chemical Analysis of Water / Waste water

| Report No | ULR-TC765323000003743P | Date of Report | 28.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | **Sample ID** | DW/2023/700115 | 3 | **Client Representative** | Mr Ratnadeep Patel |
| 4 | **Sampling Date** | 18.04.2023 | 5 | **Test Requirement** | Water Analysis |
| 6 | **Analysis Commenced on** | 19.04.2023 | 7 | **Analysis Completed on** | 28.04.2023 |
| 8 | **Sample Location** | Ground Water | 9 | **Sample Collected By** | EET Team |
| 10 | **ETP / STP Status:** | NA | 11 | **Sample Category** | Grab |
| 12 | **Sampling Procedure** | IS 3025 (Part 1) | 13 | **Packing Condition & Quantity** | Sealed & 5 Lit |
| 14 | **Environment Condition During Sampling** | 25 ± 3 °C | | | |
| 15 | **Environment Condition During Testing** | 25 ± 3 °C | | | |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Results | Test Method |
|---|---|---|---|---|
| 1 | pH@25°C | - | 8.14 | IS 3025 (Part 11) |
| 2 | Total Hardness | mg/L | 246 | IS 3025 (Part 21) |
| 3 | Total Dissolved Solid (TDS) | mg/L | 570 | IS 3025 (Part 16) |
| 4 | Chlorides (as Cl) | mg/L | 57.34 | IS 3025 (Part 32) |
| 5 | Sulphates (as $SO_4$) | mg/L | 24.06 | IS 3025 (Part 24) |
| 6 | Copper (as Cu) | mg/L | 0.24 | IS 3025 (Part 42) |
| 7 | Iron ( as Fe) | mg/L | 0.35 | IS 3025 (Part 53) |
| 8 | Manganese (as Mn) | mg/L | BDL | IS 3025 (Part 59) |
| 9 | Nitrate ( as $NO_3$) | mg/L | 0.26 | IS 3025 (Part 34) |
| 10 | Fluorides (as F) | mg/L | 0.19 | IS 3025 (Part 60) |
| 11 | Zinc (as Zn) | mg/L | 0.21 | IS 3025 (Part 49) |
| 12 | Alkalinity ( as $CaCO_3$) | mg/L | 180 | IS 3025 (Part 23) |
| 13 | Magnesium ( as Mg) | mg/L | 34.69 | IS 3025 (Part 59) |
| 14 | Calcium ( as Ca) | mg/L | 36.08 | IS 3025 (Part 40) |

**ND – Not Detect, BDL – Below Detection Limit]**

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A. D. Keetheriya
Analysed By

Checked By

Authorized Signatory

**End of the Test Report**

Eco Earth Technologies

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# Test Report / Certificate

## Chemical Analysis of Water / Waste water

| Report No | EET225823000013884 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | DW/2023/700364 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 25.12.2023 | 5 | Test Requirement | Water Analysis |
| 6 | Analysis Commenced on | 26.12.2023 | 7 | Analysis Completed on | 30.12.2023 |
| 8 | Sample Location | Ground Water | 9 | Sample Collected By | EET Team |
| 10 | ETP / STP Status: | NA | 11 | Sample Category | Grab |
| 12 | Sampling Procedure | IS 3025 (Part 1) | 13 | Packing Condition & Quantity | Sealed & 5 Lit |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Results | Test Method |
|---|---|---|---|---|
| 1 | pH@25°C | - | 7.96 | IS 3025 (Part 11) |
| 2 | Total Hardness | mg/L | 176 | IS 3025 (Part 21) |
| 3 | Total Dissolved Solid (TDS) | mg/L | 620 | IS 3025 (Part 16) |
| 4 | Chlorides (as Cl) | mg/L | 61.48 | IS 3025 (Part 32) |
| 5 | Sulphates (as $SO_4$) | mg/L | 35.24 | IS 3025 (Part 24) |
| 6 | Copper (as Cu) | mg/L | 0.21 | IS 3025 (Part 42) |
| 7 | Iron (as Fe) | mg/L | 0.38 | IS 3025 (Part 53) |
| 8 | Manganese (as Mn) | mg/L | BDL | IS 3025 (Part 59) |
| 9 | Nitrate (as $NO_3$) | mg/L | 0.13 | IS 3025 (Part 34) |
| 10 | Fluorides (as F) | mg/L | 0.20 | IS 3025 (Part 60) |
| 11 | Zinc (as Zn) | mg/L | 0.27 | IS 3025 (Part 49) |
| 12 | Alkalinity (as $CaCO_3$) | mg/L | 229 | IS 3025 (Part 23) |
| 13 | Magnesium (as Mg) | mg/L | 36.84 | IS 3025 (Part 59) |
| 14 | Calcium (as Ca) | mg/L | 59.70 | IS 3025 (Part 40) |

ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

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# Test Report / Certificate

## Chemical Analysis of Water / Waste water

| Report No | EET225824000002774 | Date of Report | 11.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | DW/2024/700082 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 07.03.2024 | 5 | Test Requirement | Water Analysis |
| 6 | Analysis Commenced on | 08.03.2024 | 7 | Analysis Completed on | 11.03.2024 |
| 8 | Sample Location | Ground Water | 9 | Sample Collected By | EET Team |
| 10 | ETP / STP Status: | NA | 11 | Sample Category | Grab |
| 12 | Sampling Procedure | IS 3025 (Part 1) | 13 | Packing Condition & Quantity | Sealed & 5 Lit |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Results | Test Method |
|---|---|---|---|---|
| 1 | pH@25°C | - | 8.12 | IS 3025 (Part 11) |
| 2 | Total Hardness | mg/L | 145 | IS 3025 (Part 21) |
| 3 | Total Dissolved Solid (TDS) | mg/L | 689 | IS 3025 (Part 16) |
| 4 | Chlorides (as Cl) | mg/L | 72.06 | IS 3025 (Part 32) |
| 5 | Sulphates (as $SO_4$) | mg/L | 31.52 | IS 3025 (Part 24) |
| 6 | Copper (as Cu) | mg/L | 0.20 | IS 3025 (Part 42) |
| 7 | Iron (as Fe) | mg/L | 0.27 | IS 3025 (Part 53) |
| 8 | Manganese (as Mn) | mg/L | BDL | IS 3025 (Part 59) |
| 9 | Nitrate (as $NO_3$) | mg/L | 0.14 | IS 3025 (Part 34) |
| 10 | Fluorides (as F) | mg/L | 0.22 | IS 3025 (Part 60) |
| 11 | Zinc (as Zn) | mg/L | 0.16 | IS 3025 (Part 49) |
| 12 | Alkalinity (as $CaCO_3$) | mg/L | 180.97 | IS 3025 (Part 23) |
| 13 | Magnesium (as Mg) | mg/L | 42.61 | IS 3025 (Part 59) |
| 14 | Calcium (as Ca) | mg/L | 55.08 | IS 3025 (Part 40) |

ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

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# Test Report / Certificate

## Process Stack Emission

| Report No | ULR-TC765323000003792P | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | PSE/2023/400360 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 17.04.2023 | 5 | Sample Location | Process Stack 1 (Methylation) |
| 6 | Sampling start Time | 03:10 PM | 7 | Sampling Duration | 30 Min |
| 8 | Analysis Commenced On | 18.04.2023 | 9 | Analysis Completed On | 24.04.2023 |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 &<br>IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack 1 (Methylation) | | | |
| 15 | Description of Sample | Sampling Bottle: Sealed | Filter Paper: NA | Bladder: NA | |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack 1 (Methylation) |
| 2 | Height | m | 25 |
| 4 | Diameter | Mm | 150 |
| 5 | Temperature | °C | 35.62 |
| 6 | Velocity | m/s | 5.68 |
| 7 | Stack attached to | - | Process Stack 1 (Methylation) |
| 8 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | $H_2S$ | $mg/Nm^3$ | BDL | 5 | IS 11255 (Part 4) : 2006 |

[ND – Not Detect, BDL – Below Detection Limit]

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3) The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A. D. Kathiriya
Analysed By

Checked By

Authorized Signatory

Eco Earth Technologies Ankleshwar

End of the Test Report

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# Test Report / Certificate

## Process Stack Emission

| Report No | ULR-TC765323000003793P | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | **Sample ID** | PSE/2023/400361 | | 3 | **Client Representative** | Mr Ratnadeep Patel | | |
| 4 | **Sampling Date** | 17.04.2023 | | 5 | **Sample Location** | Process Stack – 2 (Nitration) | | |
| 6 | **Sampling start Time** | 03:40 PM | | 7 | **Sampling Duration** | 30 Min | | |
| 8 | **Analysis Commenced On** | 18.04.2023 | | 9 | **Analysis Completed On** | 24.04.2023 | | |
| 10 | **Sampling Procedure** | IS 11255 (Part 3 ) : 2008 | | 11 | **Sample Collected By** | EET Team | | |
| 13 | **Test Requirement** | Air Analysis of Process Stack Emission of Process Stack – 2 (Nitration) | | | | | | |
| 15 | **Description of Sample** | **Sampling Bottle** | Sealed | **Filter Paper** | NA | **Bladder** | NA | |
| 16 | **Environment Condition During Sampling** | 25 ± 3 °C | | | | | | |
| 17 | **Environment Condition During Testing** | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack – 2 (Nitration) |
| 2 | Height | m | 25 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 34.6 |
| 6 | Velocity | m/s | 6.24 |
| 7 | Stack attached to | - | Process Stack – 2 (Nitration) |
| 8 | Air Pollution Control Measure | - | Water Scrubber & Caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Ammonia ($NH_3$) | $mg/Nm^3$ | 07.54 | 30 | IS 11255 (Part 6) : 1999 (Reaffirmed 2009) |

**[ND – Not Detect, BDL – Below Detection Limit]**

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3) The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D. Kathrecha — Analysed By

Checked By

Authorized Signatory

Eco Earth Technologies Ankleshwar 24/04/2023

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# Test Report / Certificate

## Process Stack Emission

| Report No | ULR-TC765323000003794P | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2 | Sample ID | PSE/2023/400362 | 3 | Client Representative | Mr Ratnadeep Patel |
| 4 | Sampling Date | 17.04.2023 | 5 | Sample Location | Process Stack 3 (Denitrosation) |
| 6 | Sampling start Time | 04:15 PM | 7 | Sampling Duration | 30 Min |
| 8 | Analysis Commenced On | 18.04.2023 | 9 | Analysis Completed On | 24.04.2023 |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 &<br>IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack 3 (Denitrosation) | | | |
| 15 | Description of Sample | Sampling Bottle: Sealed | | Filter Paper: NA | Bladder: NA |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack 3 (Denitrosation) |
| 2 | Height | m | 25 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 33.2 |
| 6 | Velocity | m/s | 6.24 |
| 7 | Stack attached to | - | Process Stack 3 (Denitrosation) |
| 8 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | HCl | mg/Nm$^3$ | 02.67 | 20 | CPCB/LATS/80/2013-14 |
| 2 | Oxides of Sulphur ($SO_2$) | mg/Nm$^3$ | 05.44 | 40 | IS 11255 (Part 2) : 1985 (Reaffirmed 2014) |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D. Kothiya — 24/04/2023

Analysed By | Checked By | Authorized Signatory

End of the Test Report

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# Test Report / Certificate

## Process Stack Emission

| Report No | ULR-TC765323000003795P | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | PSE/2023/400363 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 17.04.2023 | 5 | Sample Location | Process Vent - 4 | | |
| 6 | Sampling start Time | 04:45 PM | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 18.04.2023 | 9 | Analysis Completed On | 24.04.2023 | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team | | |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Vent – 4 | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Vent – 4 |
| 2 | Height | m | 15 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 34.62 |
| 6 | Velocity | m/s | 5.57 |
| 7 | Stack attached to | - | Process Vent - 4 |
| 8 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | HCl | mg/Nm³ | 05.17 | 20 | CPCB/LATS/80/2013-14 |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D. Kotheriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

Eco Earth Technologies

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225823000014033 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | PSE/2023/401583 | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 25.12.2023 | 5 | Sample Location | Process Stack 1 (Methylation) | | | |
| 6 | Sampling start Time | 03:20 PM | 7 | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 26.12.2023 | 9 | Analysis Completed On | 30.12.2023 | | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team | | | |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack 1 (Methylation) | | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA | |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack 1 (Methylation) |
| 2 | Height | m | 25 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 37.5 |
| 6 | Velocity | m/s | 5.89 |
| 7 | Stack attached to | - | Process Stack 1 (Methylation) |
| 8 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | $H_2S$ | $mg/Nm^3$ | BDL | 5 | IS 11255 (Part 4) : 2006 |

[ND – Not Detect, BDL – Below Detection Limit]

Note: 1).Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

Eco Earth Technologies

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225823000014034 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | PSE/2023/401584 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 25.12.2023 | 5 | Sample Location | Process Stack – 2 (Nitration) | | |
| 6 | Sampling start Time | 03:50 PM | Q | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 26.12.2023 | 9 | Analysis Completed On | 30.12.2023 | | |
| 10 | Sampling Procedure | IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team | | |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack – 2 (Nitration) | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack – 2 (Nitration) |
| 2 | Height | m | 25 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 32.5 |
| 6 | Velocity | m/s | 5.47 |
| 7 | Stack attached to | - | Process Stack – 2 (Nitration) |
| 8 | Air Pollution Control Measure | - | Water Scrubber & Caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Ammonia ($NH_3$) | $mg/Nm^3$ | 5.98 | 30 | IS 11255 (Part 6) : 1999 (Reaffirmed 2009) |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225823000014035 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | PSE/2023/401585 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 25.12.2023 | 5 | Sample Location | Process Stack 3 (Denitrosation) | | |
| 6 | Sampling start Time | 04:20 PM | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 26.12.2023 | 9 | Analysis Completed On | 30.12.2023 | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team | | |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack 3 (Denitrosation) | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack 3 (Denitrosation) |
| 2 | Height | m | 25 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 34.8 |
| 6 | Velocity | m/s | 6.01 |
| 7 | Stack attached to | - | Process Stack 3 (Denitrosation) |
| 8 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | HCl | $mg/Nm^3$ | 4.17 | 20 | CPCB/LATS/80/2013-14 |
| 2 | Oxides of Sulphur ($SO_2$) | $mg/Nm^3$ | 7.84 | 40 | IS 11255 (Part 2) : 1985 (Reaffirmed 2014) |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiriya
Analysed By

Checked By

30/12/23
Authorized Signatory

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225823000014036 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | PSE/2023/401586 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 25.12.2023 | 5 | Sample Location | Process Vent - 4 | | |
| 6 | Sampling start Time | 04:50 PM | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 26.12.2023 | 9 | Analysis Completed On | 30.12.2023 | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3 ) : 2008 | 11 | Sample Collected By | EET Team | | |
| 13 | Test Requirement | Air Analysis of Process Stack Emission of Process Vent – 4 | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Vent – 4 |
| 2 | Height | m | 15 |
| 4 | Diameter | mm | 150 |
| 5 | Temperature | °C | 35.8 |
| 6 | Velocity | m/s | 5.70 |
| 7 | Stack attached to | - | Process Vent - 4 |
| 8 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | HCl | mg/Nm$^3$ | 5.63 | 20 | CPCB/LATS/80/2013-14 |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225824000002882 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | PSE/2024/400337 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | Process Stack 1 (Methylation) | | |
| 6 | Sampling start Time | 02:00 PM | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3): 2008 | 11 | Sample Collected By | EET Team | | |
| 12 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack 1 (Methylation) | | | | | |
| 13 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack 1 (Methylation) |
| 2 | Height | m | 25 |
| 3 | Diameter | mm | 150 |
| 4 | Temperature | °C | 33.4 |
| 5 | Velocity | m/s | 6.21 |
| 6 | Stack attached to | - | Process Stack 1 (Methylation) |
| 7 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | $H_2S$ | $mg/Nm^3$ | BDL | 5 | IS 11255 (Part 4) : 2006 |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiriya
Analysed By

Checked By

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225824000002883 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | PSE/2024/400338 | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | Process Stack – 2 (Nitration) | | | |
| 6 | Sampling start Time | 02:30 PM | Q | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | | |
| 10 | Sampling Procedure | IS 11255 (Part 3): 2008 | 11 | Sample Collected By | EET Team | | | |
| 12 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack – 2 (Nitration) | | | | | | |
| 13 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA | |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack – 2 (Nitration) |
| 2 | Height | m | 25 |
| 3 | Diameter | mm | 150 |
| 4 | Temperature | °C | 29.4 |
| 5 | Velocity | m/s | 6.35 |
| 6 | Stack attached to | - | Process Stack – 2 (Nitration) |
| 7 | Air Pollution Control Measure | - | Water Scrubber & Caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Ammonia ($NH_3$) | $mg/Nm^3$ | 3.08 | 30 | IS 11255 (Part 6) : 1999 (Reaffirmed 2009) |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

Eco Earth Technologies

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225824000002884 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | PSE/2024/400339 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | Process Stack 3 (Denitrosation) | | |
| 6 | Sampling start Time | 03:00 PM | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3): 2008 | 11 | Sample Collected By | EET Team | | |
| 12 | Test Requirement | Air Analysis of Process Stack Emission of Process Stack 3 (Denitrosation) | | | | | |
| 13 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Stack 3 (Denitrosation) |
| 2 | Height | m | 25 |
| 3 | Diameter | mm | 150 |
| 4 | Temperature | °C | 34.6 |
| 5 | Velocity | m/s | 6.26 |
| 6 | Stack attached to | - | Process Stack 3 (Denitrosation) |
| 7 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | HCl | $mg/Nm^3$ | 1.93 | 20 | CPCB/LATS/80/2013-14 |
| 2 | Oxides of Sulphur ($SO_2$) | $mg/Nm^3$ | 3.85 | 40 | IS 11255 (Part 2): 1985 (Reaffirmed 2014) |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

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# Test Report / Certificate

## Process Stack Emission

| Report No | EET225824000002885 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | PSE/2024/400340 | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | Process Vent - 4 | | | |
| 6 | Sampling start Time | 03:30 PM | 7 | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | | |
| 10 | Sampling Procedure | CPCB/LATS/80/2013-14 & IS 11255 (Part 3): 2008 | 11 | Sample Collected By | EET Team | | | |
| 12 | Test Requirement | Air Analysis of Process Stack Emission of Process Vent – 4 | | | | | | |
| 13 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | NA | Bladder | NA | |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Process Vent – 4 |
| 2 | Height | m | 15 |
| 3 | Diameter | mm | 150 |
| 4 | Temperature | °C | 30.4 |
| 5 | Velocity | m/s | 6.59 |
| 6 | Stack attached to | - | Process Vent - 4 |
| 7 | Air Pollution Control Measure | - | Water Scrubber & caustic Scrubber |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | HCl | $mg/Nm^3$ | 3.63 | 20 | CPCB/LATS/80/2013-14 |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.P.Kathiriya
Analysed By

Checked By

Authorized Signatory

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# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | ULR-TC765323000003799F | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | **Sample ID** | STM/2023/300449 | | 3 | **Client Representative** | Mr Ratnadeep Patel | | |
| 4 | **Sampling Date** | 17.04.2023 | | 5 | **Sample Location** | Boiler (8 TPH) | | |
| 6 | **Sampling start Time** | 02:00 PM | | 7 | **Sampling Duration** | 30 Min | | |
| 8 | **Analysis Commenced On** | 18.04.2023 | | 9 | **Analysis Completed On** | 24.04.2023 | | |
| 10 | **Sampling Procedure** | IS 11255 (Part 3):2008 | | 11 | **Sample Collected By** | EET Team | | |
| 13 | **Test Requirement** | Air Analysis of Flue Gas Stack Emission of Boiler (8 TPH) | | | | | | |
| 15 | **Description of Sample** | **Sampling Bottle** | Sealed | **Filter Paper** | Sealed | **Bladder** | Packed | |
| 16 | **Environment Condition During Sampling** | 25 ± 3 °C | | | | | | |
| 17 | **Environment Condition During Testing** | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Boiler (8 TPH ) |
| 2 | Height | m | 30 |
| 3 | Diameter | m | 1.0 |
| 4 | Temperature | °C | 65.1 |
| 5 | Velocity | m/s | 7.21 |
| 6 | Types of Fuel | - | Bio Briquette |
| 7 | Quantity of Fuel | - | - |
| 8 | Stack attached to | - | Boiler (8 TPH ) |
| 9 | Air Pollution Control Measure | - | Bag Filter |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 62.34 | 150 | IS 11255 (Part 1) : 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 15.69 | 100 | IS 11255 (Part2) : 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_x$) | ppm | 17.04 | 50 | IS 11255 (Part 7) : 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

Note: 1).Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

Analysed By

Checked By

Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015 Certified Company
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Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | ULR-TC765323000003800F | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | STM/2023/300450 | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 17.04.2023 | 5 | Sample Location | D G Set (625 KVA) | | | |
| 6 | Sampling start Time | 02:35 PM | 7 | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 18.04.2023 | 9 | Analysis Completed On | 24.04.2023 | | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | 11 | Sample Collected By | EET Team | | | |
| 13 | Test Requirement | Air Analysis of Flue Gas Stack Emission of D G Set (625 KVA) | | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | Sealed | Bladder | Packed | |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | D G Set (625 KVA) |
| 2 | Height | m | 15 |
| 4 | Diameter | m | 0.5 |
| 5 | Temperature | °C | 113.6 |
| 6 | Velocity | m/s | 6.70 |
| 7 | Types of Fuel | - | Diesel |
| 8 | Quantity of Fuel | - | - |
| 7 | Stack attached to | - | D G Set (625 KVA) |
| 8 | Air Pollution Control Measure | - | Not Applicable |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 26.95 | 150 | IS 11255 (Part 1) : 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 13.04 | 100 | IS 11255 (Part2) : 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_x$) | ppm | 29.68 | 50 | IS 11255 (Part 7) : 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D. Kathiriya
Analysed By

Checked By

24/04/2023
Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015 Certified Company
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MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate, Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | EET225823000014029 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | STM/2023/301662 | | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 25.12.2023 | | 5 | Sample Location | Boiler (8 TPH) | | |
| 6 | Sampling start Time | 02:00 PM | | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 26.12.2023 | | 9 | Analysis Completed On | 30.12.2023 | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | | 11 | Sample Collected By | EET Team | | |
| 13 | Test Requirement | Air Analysis of Flue Gas Stack Emission of Boiler (8 TPH) | | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | | Filter Paper | Sealed | Bladder | Packed |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Boiler (8 TPH ) |
| 2 | Height | m | 30 |
| 3 | Diameter | m | 1.0 |
| 4 | Temperature | °C | 119.6 |
| 5 | Velocity | m/s | 7.58 |
| 6 | Types of Fuel | - | Bio Briquette |
| 7 | Quantity of Fuel | - | - |
| 8 | Stack attached to | - | Boiler (8 TPH ) |
| 9 | Air Pollution Control Measure | - | Bag Filter |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 58.34 | 150 | IS 11255 (Part 1) : 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 22.67 | 100 | IS 11255 (Part2) : 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_X$) | ppm | 16.51 | 50 | IS 11255 (Part 7) : 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
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# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | EET225823000014030 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | | |
| 2 | Sample ID | STM/2023/301663 | 3 | Client Representative | Mr Ratnadeep Patel | | | | |
| 4 | Sampling Date | 25.12.2023 | 5 | Sample Location | D G Set (625 KVA) | | | | |
| 6 | Sampling start Time | 02:30 PM | 7 | Sampling Duration | 30 Min | | | | |
| 8 | Analysis Commenced On | 26.12.2023 | 9 | Analysis Completed On | 30.12.2023 | | | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | 11 | Sample Collected By | EET Team | | | | |
| 13 | Test Requirement | Air Analysis of Flue Gas Stack Emission of D G Set (625 KVA) | | | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | Sealed | Bladder | Packed | | |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | D G Set (625 KVA) |
| 2 | Height | m | 15 |
| 4 | Diameter | m | 0.5 |
| 5 | Temperature | °C | 114.2 |
| 6 | Velocity | m/s | 6.85 |
| 7 | Types of Fuel | - | Diesel |
| 8 | Quantity of Fuel | - | - |
| 7 | Stack attached to | - | D G Set (625 KVA) |
| 8 | Air Pollution Control Measure | - | Not Applicable |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 22.61 | 150 | IS 11255 (Part 1) : 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 14.20 | 100 | IS 11255 (Part2) : 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_X$) | ppm | 31.72 | 50 | IS 11255 (Part 7) : 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
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# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | EET225823000014031 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | | |
| 2 | Sample ID | STM/2023/301664 | | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 25.12.2023 | | 5 | Sample Location | D G Set (1250 KVA) | | | |
| 6 | Sampling start Time | 03:00 PM | | 7 | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 26.12.2023 | | 9 | Analysis Completed On | 30.12.2023 | | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | | 11 | Sample Collected By | EET Team | | | |
| 13 | Test Requirement | Air Analysis of Flue Gas Stack Emission of D G Set (1250 KVA) | | | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | | Filter Paper | Sealed | Bladder | Packed | |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | D G Set (1250 KVA) |
| 2 | Height | m | 15 |
| 4 | Diameter | m | 0.5 |
| 5 | Temperature | °C | 119.6 |
| 6 | Velocity | m/s | 7.01 |
| 7 | Types of Fuel | - | Diesel |
| 8 | Quantity of Fuel | - | - |
| 7 | Stack attached to | - | D G Set (1250 KVA) |
| 8 | Air Pollution Control Measure | - | Not Applicable |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 25.74 | 150 | IS 11255 (Part 1) : 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 16.11 | 100 | IS 11255 (Part2) : 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_X$) | ppm | 33.69 | 50 | IS 11255 (Part 7) : 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiriya
Analysed By

Checked By

30/12/23
Authorized Signatory

End of the Test Report

Eco Earth Technologies

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Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | EET225824000002897 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | |
| 2 | Sample ID | STM/2024/300346 | 3 | Client Representative | Mr Ratnadeep Patel | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | Boiler (8 TPH) | | |
| 6 | Sampling start Time | 12:30 PM | 7 | Sampling Duration | 30 Min | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | 11 | Sample Collected By | EET Team | | |
| 13 | Test Requirement | Air Analysis of Flue Gas Stack Emission of Boiler (8 TPH) | | | | | |
| 15 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | Sealed | Bladder | Packed |
| 16 | Environment Condition During Sampling | 25 ± 3 °C | | | | | |
| 17 | Environment Condition During Testing | 25 ± 3 °C | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | Boiler (8 TPH) |
| 2 | Height | m | 30 |
| 3 | Diameter | m | 1.0 |
| 4 | Temperature | °C | 118.4 |
| 5 | Velocity | m/s | 6.25 |
| 6 | Types of Fuel | - | Bio Briquette |
| 7 | Quantity of Fuel | - | - |
| 8 | Stack attached to | - | Boiler (8 TPH) |
| 9 | Air Pollution Control Measure | - | Bag Filter |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 56.34 | 150 | IS 11255 (Part 1): 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 30.87 | 100 | IS 11255 (Part2): 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_X$) | ppm | 19.62 | 50 | IS 11255 (Part 7): 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D. Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
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# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | EET225824000002898 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | STM/2024/300347 | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | D G Set (625 KVA) | | | |
| 6 | Sampling start Time | 01:00 PM | 7 | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | 11 | Sample Collected By | EET Team | | | |
| 12 | Test Requirement | Air Analysis of Flue Gas Stack Emission of D G Set (625 KVA) | | | | | | |
| 13 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | Sealed | Bladder | Packed | |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | D G Set (625 KVA) |
| 2 | Height | m | 15 |
| 3 | Diameter | m | 0.5 |
| 4 | Temperature | °C | 117.4 |
| 5 | Velocity | m/s | 6.34 |
| 6 | Types of Fuel | - | Diesel |
| 7 | Quantity of Fuel | - | - |
| 8 | Stack attached to | - | D G Set (625 KVA) |
| 9 | Air Pollution Control Measure | - | Not Applicable |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 25.73 | 150 | IS 11255 (Part 1): 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 16.26 | 100 | IS 11255 (Part2): 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_X$) | ppm | 32.83 | 50 | IS 11255 (Part 7): 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A. D. Kothiya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
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(GPCB RECOGNIZED SCHEDULED - II ENVIRONMENTAL AUDITOR)
MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate, Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Flue Gas Stack Emission

| Report No | EET225824000002899 | Date of Report | 12.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | | | | |
| 2 | Sample ID | STM/2024/300348 | 3 | Client Representative | Mr Ratnadeep Patel | | | |
| 4 | Sampling Date | 07.03.2024 | 5 | Sample Location | D G Set (1250 KVA) | | | |
| 6 | Sampling start Time | 01:30 PM | 7 | Sampling Duration | 30 Min | | | |
| 8 | Analysis Commenced On | 08.03.2024 | 9 | Analysis Completed On | 12.03.2024 | | | |
| 10 | Sampling Procedure | IS 11255 (Part 3):2008 | 11 | Sample Collected By | EET Team | | | |
| 12 | Test Requirement | Air Analysis of Flue Gas Stack Emission of D G Set (1250 KVA) | | | | | | |
| 13 | Description of Sample | Sampling Bottle | Sealed | Filter Paper | Sealed | Bladder | Packed | |
| 14 | Environment Condition During Sampling | 25 ± 3 °C | | | | | | |
| 15 | Environment Condition During Testing | 25 ± 3 °C | | | | | | |

## STACK DETAILS

| Sr. No. | Parameter | Unit (SI) | Description |
|---|---|---|---|
| 1 | Source | - | D G Set (1250 KVA) |
| 2 | Height | m | 15 |
| 3 | Diameter | m | 0.5 |
| 4 | Temperature | °C | 112.6 |
| 5 | Velocity | m/s | 6.34 |
| 6 | Types of Fuel | - | Diesel |
| 7 | Quantity of Fuel | - | - |
| 8 | Stack attached to | - | D G Set (1250 KVA) |
| 9 | Air Pollution Control Measure | - | Not Applicable |

## TEST RESULT

| Sr. No. | Parameter | Unit (SI) | Result | Permissible Limit/ GPCB Norms | Test Method |
|---|---|---|---|---|---|
| 1 | Suspended Particulate Matter | $mg/Nm^3$ | 27.34 | 150 | IS 11255 (Part 1): 1985 (Reaffirmed 2014) |
| 2 | Sulphur Dioxide ($SO_2$) | ppm | 14.26 | 100 | IS 11255 (Part2): 1985 (Reaffirmed 2014) |
| 3 | Oxides of Nitrogen ($NO_X$) | ppm | 32.01 | 50 | IS 11255 (Part 7): 2005 (Reaffirmed 2012) |

[ND – Not Detect, BDL – Below Detection Limit]

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3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
AN ISO 9001:2015 & ISO 14001:2015 CERTIFIED COMPANY
(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
OFFICE & LAB ADDRESS : PLOT NO.: 3202/A/2/1, T-1 3RD FLOOR,GIDC MULTILEVEL SHED,
NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


**Work Place Monitoring Report**

**FORM NO: 37**

**(Prescribe under Rule 12-B)**

**Register containing particulars of monitoring of working environment required under section 7-A (a) (e)**

| | |
|---|---|
| Company name and address | **M/S RALLIS INDIA LIMITED**<br>**PLOT NO. Z-110, SEZ – II, DAHEJ 392130**<br>**TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA** |
| Report No | EET225823000003737 |
| Date of Sampling | 17.04.2023 |
| Date of Receipt | 17.04.2023 |
| Date of Analysis start | 18.04.2023 |
| Date of Completion | 24.04.2023 |

| Sr. No | Location /Operation Mentioned | Identified Contaminant | Sampling Instrument Used | Air bone Contamination | | Average | TWA Concentration (as given in second scheduled) | Reference Method | Number of workers exposed at the location being monitored | Remarks | Signature of person taking sample | Name (In block Letter) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No of Samples | Range | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1 | Metribuzin Plant 2 Area | SPM | Personal Handy Sampler | 1 | 4.43 mg/Nm³ | 4.43 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | SOx | Personal Handy Sampler | 1 | 2.20 mg/Nm³ | 2.20 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | NOx | Personal Handy Sampler | 1 | 1.86 ppm | 1.86 ppm | 50 ppm | OSHA ID-116 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | HCl | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | HC | Bladder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 6 – 7 | During Process | | MR DAXESH PATEL |

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
AN ISO 9001:2015 & ISO 14001:2015 CERTIFIED COMPANY
(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
OFFICE & LAB ADDRESS : PLOT NO.: 3202/A/2/1, T-1 3RD FLOOR,GIDC MULTILEVEL SHED,
NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $AlCl_3$ | Personal Handy Sampler | 1 | BDL | BDL | - | OSHA ID – 121 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | Valeryl | Personal Handy Sampler | 1 | 6.79 mg/Nm³ | 6.79 mg/Nm³ | 175 mg/Nm³ | OSHA 85 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | KOH (Potassium Hydroxide) | Personal Handy Sampler | 1 | BDL | BDL | 2 mg/Nm³ | NIOSH 7401 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | DMF (Dimethylformide) | Personal Handy Sampler | 1 | BDL | BDL | 10 ppm | NIOSH 2004 | 6 – 7 | During Process | | MR DAXESH PATEL |
| | | Methanol | Personal Handy Sampler | 1 | 42.37 ppm | 42.37 ppm | 200 ppm | OSHA 5001 | 6 – 7 | During Process | | MR DAXESH PATEL |
| 2 | Pulverization Area | SPM | Personal Handy Sampler | 1 | 3.62 mg/Nm³ | 3.62 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | SOx | Personal Handy Sampler | 1 | 2.88 mg/Nm³ | 2.88 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | NOx | Personal Handy Sampler | 1 | 2.01 ppm | 2.01 ppm | 50 ppm | OSHA ID-116 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | HCl | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | HC | Balder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | Hydrazine | Personal Handy Sampler | 1 | BDL | BDL | 1 ppm | OSHA 20 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | Carbon | Personal Handy Sampler | 1 | BDL | BDL | 3.5 mg/Nm³ | OSHA ID - 196 | 5 – 8 | During Process | | MR ROSHAN PARMAR |

# ECO EARTH TECHNOLOGIES

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| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Acetic Acid | Personal Handy Sampler | 1 | 1.46 ppm | 1.46 ppm | 10 ppm | OSHA PV 2119 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | Sulphuric Acid | Personal Handy Sampler | 1 | BDL | BDL | 1 mg/Nm$^3$ | OSHA 113 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | Methanol | Personal Handy Sampler | 1 | 60.21 ppm | 60.21 ppm | 200 ppm | OSHA 5001 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | Caustic Soda | Personal Handy Sampler | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| | | Toluene | Personal Handy Sampler | 1 | 51.69 ppm | 51.69 ppm | 500 ppm | OSHA 111 | 5 – 8 | During Process | | MR ROSHAN PARMAR |
| 3 | Boiler Area | SPM | Personal Handy Sampler | 1 | 2.84 mg/Nm$^3$ | 2.84 mg/Nm$^3$ | 15 mg/Nm$^3$ | NIOSH 0500 | 4 – 6 | During Process | | MR DAXESH PATEL |
| | | SOX | Personal Handy Sampler | 1 | 3.07 mg/Nm$^3$ | 3.07 mg/Nm$^3$ | 13 mg/Nm$^3$ | OSHA 1011 | 4 – 6 | During Process | | MR DAXESH PATEL |
| | | NOX | Personal Handy Sampler | 1 | 2.65 ppm | 2.65 ppm | 50 ppm | OSHA ID-116 | 4 – 6 | During Process | | MR DAXESH PATEL |
| | | HCL | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 4 – 6 | During Process | | MR DAXESH PATEL |
| | | HC | Bladder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 4 – 6 | During Process | | MR DAXESH PATEL |

**[ND – Not Detect, BDL – Below Detection Limit]**

For, Eco Earth Technologies

A.D.Kathrani

**Analyzed By**

**Checked By**

Eco Earth Technologies Ankleshwar 4/10/2023

**Authorized Signatory**

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
AN ISO 9001:2015 & ISO 14001:2015 CERTIFIED COMPANY
(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
OFFICE & LAB ADDRESS : PLOT NO.: 3202/A/2/1, T-1 3RD FLOOR,GIDC MULTILEVEL SHED,
NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


**Work Place Monitoring Report**

**FORM NO: 37**

**(Prescribe under Rule 12-B)**

**Register containing particulars of monitoring of working environment required under section 7-A (a) (e)**

| | |
|---|---|
| Company name and address | **M/S RALLIS INDIA LIMITED**<br>**PLOT NO. Z-110, SEZ – II, DAHEJ 392130**<br>**TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA** |
| Report No | EET225823000014235 |
| Date of Sampling | **25.12.2023** |
| Date of Receipt | **25.12.2023** |
| Date of Analysis start | **26.12.2023** |
| Date of Completion | **30.12.2023** |

| Sr. No | Location /Operation Mentioned | Identified Contaminant | Sampling Instrument Used | Air bone Contamination | | Average | TWA Concentration (as given in second scheduled) | Reference Method | Number of workers exposed at the location being monitored | Remarks | Signature of person taking sample | Name (In block Letter) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No of Samples | Range | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1 | Metribuzin Plant 2 Area | SPM | Personal Handy Sampler | 1 | 3.02 mg/Nm³ | 3.02 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 7 – 12 | During Process | Dvs. | MR DEVENDRA SOLANKI |
| | | SOx | Personal Handy Sampler | 1 | 1.95 mg/Nm³ | 1.95 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 7 – 12 | During Process | Dvs. | MR DEVENDRA SOLANKI |
| | | NOx | Personal Handy Sampler | 1 | 1.86 ppm | 1.86 ppm | 50 ppm | OSHA ID-116 | 7 – 12 | During Process | Dvs. | MR DEVENDRA SOLANKI |
| | | HCl | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 7 – 12 | During Process | Dvs. | MR DEVENDRA SOLANKI |
| | | HC | Bladder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 7 – 12 | During Process | Dvs. | MR DEVENDRA SOLANKI |

Eco Earth Technologies Ankleshwar

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
AN ISO 9001:2015 & ISO 14001:2015 CERTIFIED COMPANY
(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
OFFICE & LAB ADDRESS : PLOT NO.: 3202/A/2/1, T-1 3RD FLOOR,GIDC MULTILEVEL SHED,
NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $AlCl_3$ | Personal Handy Sampler | 1 | BDL | BDL | - | OSHA ID – 121 | 7 – 12 | During Process | | MR DEVENDRA SOLANKI |
| | | Valeryl | Personal Handy Sampler | 1 | 3.11 mg/Nm³ | 3.11 mg/Nm³ | 175 mg/Nm³ | OSHA 85 | 7 – 12 | During Process | | MR DEVENDRA SOLANKI |
| | | KOH (Potassium Hydroxide) | Personal Handy Sampler | 1 | BDL | BDL | 2 mg/Nm³ | NIOSH 7401 | 7 – 12 | During Process | | MR DEVENDRA SOLANKI |
| | | DMF (Dimethylformide) | Personal Handy Sampler | 1 | BDL | BDL | 10 ppm | NIOSH 2004 | 7 – 12 | During Process | | MR DEVENDRA SOLANKI |
| | | Methanol | Personal Handy Sampler | 1 | 46.94 ppm | 46.94 ppm | 200 ppm | OSHA 5001 | 7 – 12 | During Process | | MR DEVENDRA SOLANKI |
| 2 | Pulverization Area | SPM | Personal Handy Sampler | 1 | 2.17 mg/Nm³ | 2.17 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |
| | | SOx | Personal Handy Sampler | 1 | 1.20 mg/Nm³ | 1.20 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |
| | | NOx | Personal Handy Sampler | 1 | 1.85 ppm | 1.85 ppm | 50 ppm | OSHA ID-116 | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |
| | | HCl | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |
| | | HC | Balder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |
| | | Hydrazine | Personal Handy Sampler | 1 | BDL | BDL | 1 ppm | OSHA 20 | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |
| | | Carbon | Personal Handy Sampler | 1 | BDL | BDL | 3.5 mg/Nm³ | OSHA ID - 196 | 6 – 9 | During Process | | MR VIRENDRA SOLANKI |

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
AN ISO 9001:2015 & ISO 14001:2015 CERTIFIED COMPANY
(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
OFFICE & LAB ADDRESS : PLOT NO.: 3202/A/2/1, T-1 3RD FLOOR,GIDC MULTILEVEL SHED,
NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
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E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Acetic Acid | Personal Handy Sampler | 1 | 1.16 ppm | 1.16 ppm | 10 ppm | OSHA PV 2119 | 6 – 9 | During Process | Virv | MR VIRENDRA SOLANKI |
| | | Sulphuric Acid | Personal Handy Sampler | 1 | BDL | BDL | 1 mg/Nm$^3$ | OSHA 113 | 6 – 9 | During Process | Virv | MR VIRENDRA SOLANKI |
| | | Methanol | Personal Handy Sampler | 1 | 46.70 ppm | 46.70 ppm | 200 ppm | OSHA 5001 | 6 – 9 | During Process | Virv | MR VIRENDRA SOLANKI |
| | | Caustic Soda | Personal Handy Sampler | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 6 – 9 | During Process | Virv | MR VIRENDRA SOLANKI |
| | | Toluene | Personal Handy Sampler | 1 | 59.41 ppm | 59.41 ppm | 500 ppm | OSHA 111 | 6 – 9 | During Process | Virv. | MR VIRENDRA SOLANKI |
| 3 | Boiler Area | SPM | Personal Handy Sampler | 1 | 2.87 mg/Nm$^3$ | 2.87 mg/Nm$^3$ | 15 mg/Nm$^3$ | NIOSH 0500 | 7 – 8 | During Process | Devs. | MR DEVENDRA SOLANKI |
| | | SOX | Personal Handy Sampler | 1 | 1.89 mg/Nm$^3$ | 1.89 mg/Nm$^3$ | 13 mg/Nm$^3$ | OSHA 1011 | 7 – 8 | During Process | Devs. | MR DEVENDRA SOLANKI |
| | | NOX | Personal Handy Sampler | 1 | 1.27 ppm | 1.27 ppm | 50 ppm | OSHA ID-116 | 7 – 8 | During Process | Devs | MR DEVENDRA SOLANKI |
| | | HCL | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 7 – 8 | During Process | Devs | MR DEVENDRA SOLANKI |
| | | HC | Bladder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 7 – 8 | During Process | Devs | MR DEVENDRA SOLANKI |

**[ND – Not Detect, BDL – Below Detection Limit]**

A.D. Kathiriya
**Analyzed By**

**Checked By**

**[End of The Test Report]**

**For, Eco Earth Technologies**

20/12/23

**Authorized Signatory**

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
AN ISO 9001:2015 & ISO 14001:2015 CERTIFIED COMPANY
(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
OFFICE & LAB ADDRESS : PLOT NO.: 3202/A/2/1, T-1 3RD FLOOR,GIDC MULTILEVEL SHED,
NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


**Work Place Monitoring Report**

**FORM NO: 37**

**(Prescribe under Rule 12-B)**

**Register containing particulars of monitoring of working environment required under section 7-A (a) (e)**

| | |
|---|---|
| Company name and address | **M/S RALLIS INDIA LIMITED**<br>**PLOT NO. Z-110, SEZ – II, DAHEJ 392130**<br>**TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA** |
| Report No | EET225824000002763 |
| Date of Sampling | **07.03.2024** |
| Date of Receipt | **08.02.2024** |
| Date of Analysis start | **08.03.2024** |
| Date of Completion | **12.03.2024** |

| Sr. No | Location /Operation Mentioned | Identified Contaminant | Sampling Instrument Used | Air bone Contamination | | Average | TWA Concentration (as given in second scheduled) | Reference Method | Number of workers exposed at the location being monitored | Remarks | Signature of person taking sample | Name (In block Letter) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | No of Samples | Range | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1 | Metribuzin Plant 2 Area | SPM | Personal Handy Sampler | 1 | 7.14 mg/Nm³ | 7.14 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | SOx | Personal Handy Sampler | 1 | 4.86 mg/Nm³ | 4.86 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | NOx | Personal Handy Sampler | 1 | 3.68 ppm | 3.68 ppm | 50 ppm | OSHA ID-116 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | HCl | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | HC | Bladder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 6 – 8 | During Process | | MR DAXESH PATEL |

# ECO EARTH TECHNOLOGIES

NABL ACCREDITED LABORATORY (T-4196)
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NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $AlCl_3$ | Personal Handy Sampler | 1 | BDL | BDL | - | OSHA ID – 121 | 6 – 8 | During Process | Dpatel | MR DAXESH PATEL |
| | | Valeryl | Personal Handy Sampler | 1 | 3.82 mg/Nm³ | 3.82 mg/Nm³ | 175 mg/Nm³ | OSHA 85 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | KOH (Potassium Hydroxide) | Personal Handy Sampler | 1 | BDL | BDL | 2 mg/Nm³ | NIOSH 7401 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | DMF (Dimethylformide) | Personal Handy Sampler | 1 | BDL | BDL | 10 ppm | NIOSH 2004 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | Methanol | Personal Handy Sampler | 1 | 69.81 ppm | 69.81 ppm | 200 ppm | OSHA 5001 | 6 – 8 | During Process | | MR DAXESH PATEL |
| 2 | Pulverization Area | SPM | Personal Handy Sampler | 1 | 6.39 mg/Nm³ | 6.39 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 7 - 10 | During Process | Vinod | MR VINOD BARIYA |
| | | SOx | Personal Handy Sampler | 1 | 4.27 mg/Nm³ | 4.27 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | NOx | Personal Handy Sampler | 1 | 3.64 ppm | 3.64 ppm | 50 ppm | OSHA ID-116 | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | HCl | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | HC | Balder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | Hydrazine | Personal Handy Sampler | 1 | BDL | BDL | 1 ppm | OSHA 20 | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | Carbon | Personal Handy Sampler | 1 | BDL | BDL | 3.5 mg/Nm³ | OSHA ID - 196 | 7 - 10 | During Process | | MR VINOD BARIYA |

# ECO EARTH TECHNOLOGIES

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(GPCB SCHEDULED – II ENVIRONMENTAL AUDITOR)
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NEAR ADVANCE PAINT,GIDC IND ESTATE, ANKLESHWAR 393002, DIST:BHARUCH, GUJARAT
CONTACT NO: 094091333000 / 9601758907
E-MAIL ID : ECOEARTH.TECHNOLOGIES@GMAIL.COM, WEB : WWW.ECOEARTHTECHNOLOGIES@GMAIL.COM


| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Acetic Acid | Personal Handy Sampler | 1 | 1.86 ppm | 1.86 ppm | 10 ppm | OSHA PV 2119 | 7 - 10 | During Process | Vinod. | MR VINOD BARIYA |
| | | Sulphuric Acid | Personal Handy Sampler | 1 | BDL | BDL | 1 mg/Nm³ | OSHA 113 | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | Methanol | Personal Handy Sampler | 1 | 61.28 ppm | 61.28 ppm | 200 ppm | OSHA 5001 | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | Caustic Soda | Personal Handy Sampler | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 7 - 10 | During Process | | MR VINOD BARIYA |
| | | Toluene | Personal Handy Sampler | 1 | 50.87 ppm | 50.87 ppm | 500 ppm | OSHA 111 | 7 - 10 | During Process | | MR VINOD BARIYA |
| 3 | Boiler Area | SPM | Personal Handy Sampler | 1 | 5.87 mg/Nm³ | 5.87 mg/Nm³ | 15 mg/Nm³ | NIOSH 0500 | 6 – 8 | During Process | Dpatel. | MR DAXESH PATEL |
| | | SOX | Personal Handy Sampler | 1 | 5.27 mg/Nm³ | 5.27 mg/Nm³ | 13 mg/Nm³ | OSHA 1011 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | NOX | Personal Handy Sampler | 1 | 4.03 ppm | 4.03 ppm | 50 ppm | OSHA ID-116 | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | HCL | Personal Handy Sampler | 1 | BDL | BDL | 5 ppm | Method of Air Sampling and Analysis -2nd Edition | 6 – 8 | During Process | | MR DAXESH PATEL |
| | | HC | Bladder | 1 | BDL | BDL | - | Method of Air Sampling and Analysis -2nd Edition | 6 – 8 | During Process | | MR DAXESH PATEL |

[ND – Not Detect, BDL – Below Detection Limit]

For, Eco Earth Technologies

A.D.Kathiriya
Analyzed By

Checked By

Authorized Signatory

[End of The Test Report]

Z-110

GPCB

# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN
Sector-10-A, **Gandhinagar**-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

**By R.P.A.D.**

**CONSOLIDATED CONSENT AND AUTHORIZATION(CC & A)**
**CCA NO: AWH-113914**

**NO: GPCB/BRCH/CCA- 25(9)/ID-32966/_____** **DT:____/09/2021**

In exercise of the power conferred underSection-25of the Water (Prevention and Control of Pollution)Act-1974, under Section-21 of the Air (Prevention and Control of Pollution)Act-1981 and Authorization under rule 6(2) of the Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986.

And whereas Board has received consolidated application dated **15/04/2021**and inward no. **192475** for the consolidated consent and authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts, Consolidated Consent & Authorization is hereby granted as under.

**CONSOLIDATED CONSENT AND AUTHORISATION:**
(Under the provisions / rules of the aforesaid Environmental Acts)

**To,**
**M/s.Rallis India Limited,**
**PLOT NO: Z-110,**
**Dahej SEZ-2, Taluka: Vagra**
**Dist: BHARUCH- 392130**

1. **Consent Order No. : AWH-113914 date of Issue 26/07/2021.**
2. The consent under Water Act-1974 for conveying the industrial effluent discharge to GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal system upto the sea, The consent under Air Act-1981 & Authorization under Environment (Protection) Act, 1986 shall be **valid up to 15/04/2026**to operate industrial plant to manufacture following products:

| Sr. No. | Name of Product | Quantity (MT/Annum) |
|---|---|---|
| 1 | METRIBUZIN | 4000 |
| 2 | PENDIMETHYLENE | 5000 |
| 3 | HEXACONAZOLE | 500 |
| 4 | PROPICONAZOLE | 100 |
| 5 | TEBUCONAZOLE | 500 |
| 6 | METCONAZOLE | 1000 |
| 7 | METALAXYL | 200 |
| 8 | METALAXYL-M | 200 |
| 9 | ALLYL ALCOHAL | 2750 |
| 10 | ATORVASTRATIN | 5 |
| 11 | PENTOXAZONE | 50 |
| 12 | FLUMETRAIN | 25 |
| 13 | GY-250 (BISPHENOL-A-EPOXY RESIN) | 100 |

Outward No:601404 21/09/21



Clean Gujarat Green Gujarat

| | | |
|---|---|---|
| 14 | PROBENAZOLE | 50 |
| 15 | VALSARTAN | 10 |
| 16 | PEKK | 500 |
| 17 | DIFENOCONAZOLE | 500 |
| 18 | DIMTHOMORPH | 500 |
| 19 | MYCLOBUTANIL | 100 |
| 20 | PROPINEB | 100 |
| 21 | THIAMETHOXAZAM | 100 |
| 22 | EPOXYCONAZOLE | 300 |
| 23 | AZOXYSTROBIN | 100 |
| 24 | BISPYRIBAC SOD. | 300 |
| 25 | CARTOP HYDROCHLORIDE | 1000 |
| 26 | AZIMSULFURON | 100 |
| 27 | KRESOXIM METHYL | 100 |
| 28 | TRIFLOXYSTORBIN | 200 |
| 29 | IMIBENCONAZOLE | 200 |
| 30 | TRICYCLOZOLE | 200 |
| 30 | AROMATIC KETONE | 200 |
| 31 | ( 2- 4-PHENYLBENZOYL) BENZOIC ACID | 130 |
| 33 | KM 119 | 150 |
| 34 | BENFURESATE | 200 |
| 35 | BENZOFENAP | 200 |
| 36 | TRIAZOLINONE | 1000 |
| 37 | QUIZALOFOP | 100 |
| 38 | FLUMIOXAZINE | 100 |
| 39 | THIOPHANAT METHYL | 700 |
| 40 | IPROVALICARB | 150 |
| 41 | FENOXAPROP-P -ETHYL | 100 |
| 42 | IMIDACHLOROPID | 200 |
| 43 | PINACOLONE | 1990 |
| 44 | AMICARBAZONE | 1000 |
| 45 | 6 FMI | 100 |
| 46 | DIMOXYSTROBIN | 10 |
| 47 | ORYSASTROBIN | 10 |
| 48 | ATRAZINE | 1200 |
| 49 | FLUOXASTROBIN | 100 |
| 50 | FENOXYCARB | 100 |
| 51 | CYPROCONAZOLE | 100 |
| 52 | DIAFENTHIURON | 100 |
| 53 | FIPRONIL | 100 |
| 54 | THIAMETHOXAM – M | 100 |
| 55 | METSULFURON | 100 |
| 56 | CLODINAFOP | 100 |
| 57 | CHLORIMURON | 100 |
| 58 | PYRAZOSULFURON | 100 |

utward No:601404,21/09/2021

GPCB

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| | | |
|---|---|---|
| 59 | PROPAQUIZAFOP | 100 |
| 60 | 3-AMINO PENTANE | 2000 |
| 61 | BIS-STEARYLFORMAL (BSF) | 100 |
| 62 | PYRAFTALID | 250 |
| 63 | PROPARGYL-ABO | 500 |
| 64 | MOAT ( N METHOXY-1-(2,4,6-TRICHLOROPHENYL PROPAN)-2-AMINE | 500 |
| 65 | CAPROLACTAM DISULPHIDE | 400 |
| 66 | COLOGNE | 1500 |
| 67 | CYCLOPROPYLACETYLENE | 1200 |
| 68 | 4-CHLORO-2-(TRIFLUOROACETYL) ANILINE HYDROCHLORIDE | 1200 |
| 69 | GUANINE | 1500 |
| 70 | N,O-DIMETHYL-N'-NITROSOUREA | 600 |
| 71 | TETRACHLOROVINPHOS | 600 |
| 72 | AMITROL | 1000 |
| 73 | ACLONIFEN | 500 |
| 74 | PILOT PLANT (R&D PRODCUTS ONLY) | 10 |
| | **TOTAL** | 38940 |
| 1 | PESTICIDE FORMULATION (SOLID) | 5000 |
| 2 | PESTICIDE FORMULATION (LIQUID) | 5000 |

**Specific conditions:**

a) Unit shall not carry out any construction activities and production which attracts Unit shall comply with all the conditions stipulated by SEIAA / MoEF in the order of Environment Clearance issued vide letter no. F No.J -11011/779/2008-IA II (I) dated 17.03.2009.

a) Unit shall use fresh raw material only.

b) Unit shall strictly adhere to notarized undertaking given dated 22/03/2021 regarding not to manufacture banned pesticide.

c) Unit shall strictly adhere to notarized undertaking given dated 02/07/2021.

d) Unit shall sell out their hazardous waste to authorized endusers who is having authorization with valid CCA and rule 9 permission to receive this waste. Unit shall make MoU with such authorized endusers and submit MoU.

e) All the efforts shall be made to send hazardous waste to cement industry for Co-processing first & there after it shall be disposed through other option.

f) Unit shall follow spent solvent management guideline framed by board and shall make MoU with outside distillation units, if any. Also submit the prescribed forms as per guideline.

g) Unit shall strictly follow the Solid Fuel guideline framed by Board and shall install APCM as per guideline.

h) Unit shall strictly follow the Fly Ash Notification for disposal of generated ash.

i) Unit shall not use furnace oil

**3. CONDITION UNDER THE WATER ACT:**

Outward No: 6054 Dt: 22/09/2021

3.1 The quantity of total water consumption shall not exceed **1905 KL/Day** as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.

a) Industrial: 1725 KL/Day
b) Domestic: 130 KL/Day
c) Gardening: 50 KL/Day

3.2 The quantity of total waste water generation shall not exceed **1291.25 KL/Day** as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.

a) Industrial: 1166.25 KL/Day
b) Domestic: 125 KL/Day

3.3 Mode of disposal of wastewater:

i. 350 KL/day concentrated / high salt stream containing heavy inorganic & organic load stream of industrial effluent from process shall be sent to the evaporation system (MEE) after primary treatment. Condensate from MEE shall be reused back in cooling tower.

ii. 816.25 KL/day bio-degradable industrial effluent along with 125 KL/day domestic waste water (sewage) will be sent to ETP. The treated (industrial + sewage) effluent shall be disposed to GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal system upto sea for final disposal at NIO designated point after meeting the standards prescribed in sr no. 3.4.

3.4 The quality of industrial effluent shall conform to the following standards (as per GPCB norms, whichever is applicable) (For discharge into GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal system upto the sea for final disposal at NIO designated point)

| Sr. No. | PARAMETERS | PERMISSIBLE LIMIT |
|---|---|---|
| 1 | pH | 6 to 9 |
| 2 | Temperature | Shall not exceed more than 5 °C above ambient water temperature |
| 3 | Total Suspended Solids | 100 mg/l |
| 4 | Oil and Grease | 10 mg/l |
| 5 | Phenolic Compounds | 5 mg/l |
| 6 | Cyanide (as CN) | 0.2 mg/l |
| 7 | Fluorides (as F) | 15 mg/l |
| 8 | Sulphides | 5.0 mg/l |
| 9 | Total Residual Chlorine | 1.0 mg/l |
| 10 | Ammonical Nitrogen | 50 mg/l |
| 11 | Total Kjeldahl Nitrogen (TKN) | 50 mg/l |
| 12 | Nitrate Nitrogen | 50 mg/l |
| 13 | Biochemical Oxygen demand [3 day at 27°C] | 100 mg/l |
| 14 | Chemical Oxygen Demand | 250 mg/l |

Outward No:601404, 22/09/2021

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| | | |
|---|---|---|
| 15 | Arsenic (as AS) | 0.2 mg/l |
| 16 | Mercury (as Hg) | 0.01 mg/l |
| 17 | Lead (as Pb) | 0.1 mg/l |
| 18 | Cadmium (as Cd) | 0.05 mg/l |
| 19 | Trivalent Chromium | 2.0 mg/l |
| 20 | Hexavalent Chromium (as Cr± 6) | 0.1 mg/l |
| 21 | Copper (as Cu) | 3.0 mg/l |
| 22 | Zinc (as Zn) | 15 mg/l |
| 23 | Selenium (as Se) | 0.05 mg/l |
| 24 | Nickel (as Ni) | 3.0 mg/l |
| 25 | Manganese (as Mn) | 2 mg/l |
| 26 | Iron (as Fe) | 3 mg/l |
| 27 | Vanadium (as V) | 0.2 mg/l |
| 28 | Bio assay test | 90% survival of fish after 96 hours in 100% effluent |

3.5 The effluent conforming to the above standards shall be discharged into GIDC SewerLine- DahejVilayat Pipeline/ Common Disposal system upto the sea for final disposal at NIO designated point.

3.6 Unit shall be a member of Dahej CETP as & when come up and send their treated effluent, if required.

3.7 Unit shall be required to make storage facilities to store the effluent for at least 48 hours by providing acid proof brick lined impervious tanks/HDPE tanks.

3.8 Unit shall implement & follow communication plan so that respected work can be done in minimum response time in case of emergencies.

3.9 Unit shall install continuous / online monitoring system and shall transmit online data so generated simultaneously to GPCB and CPCB as well for the parameters such as pH, TOC, TSS, other sector specific parameters etc. with recorder & magnetic flow meters for flow measurement of treated wastewater as per CPCB guideline.

3.10 Unit shall have only one authorized outlet over the ground with full access from outside the premises. Also name of unit and technical details shall be prominently written / printed on mouth of pipeline opening in GIDC U/G drain & shall be made visible to inspecting staff.

3.11 In case of shut-down of plant for more than three (3) days for any reason, member unit shall intimate to GIDC/ Pipeline Project authority & GPCB well in advance for the better operation & management of pipeline.

3.12 Unit shall make fixed arrangement for discharge of the effluent from their Final collection tanks to the underground drainage network of GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal system. Unit shall not keep any by-pass line or system or

Outward No:601404, 21/10/2021

loose or flexible pipe line for discharge of the effluent into underground drainage network of Pipeline.

3.13 Magnetic flow meters shall be installed at the inlet & outlet of effluent collection tanks/ETP to measure the quantity of effluent discharged into the underground drainage network of GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal system.

3.14 Unit shall affix of water meters as per Section 4 (1) of the water (Prevention and Control of Pollution) Cess Act – 1977 for the purpose of measuring and recording the quantity of water consumed at such places as may be required, within 15 days and it shall be presumed that the quantity indicated by the meter has been consumed by the unit until the contrary is proved.

3.15 Unit shall provide adequate / safe effluent sampling facility for the effluent being stored in final collection / discharge tank of ETP or being discharged into GIDC Sewer Line-DahejVilayat Pipeline/ Common Disposal system upto the sea for final disposal at NIO designated point.

3.16 Unit shall put up at the entrance a board displaying the name of unit, particulars of the products/ process, the name of proprietor/partners /directors of the unit, GIDC Pipeline Project membership number & date of joining of GIDC Pipeline Project membership, the electricity consumer number as on the record of DGVCL.

3.17 Unit shall have to display on-line data outside the main factory gate with regard to and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises, if applicable as per CPCB norms.

3.18 Unit shall either stop or curtail its production activities if the effluent is not conforming to the standards of GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal systemspecified by GPCB.

3.19 The authorized representative of GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal system project shall have right of entry at any time for the purpose of inspection and monitoring the effluent collection facilities/ETP (if required) of Unit.

3.20 Unit shall have to keep accurate records of quality & quantity of effluent discharged to GIDC Sewer Line- DahejVilayat Pipeline/ Common Disposal systemon day-to-day basis. Separate logbook shall be maintained for recording the data & shall be made available for inspection as & when asked.

3.21 Unit shall keep accurate records of quantity of production of each product, quantity of water consumption, quantity of effluent generated and consumption of electricity on day to day basis and required to submit the complied record of each month to GPCB on or before fifth day of the succeeding month.

Outward No:601404,21/09/021

GPCB

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3.22 In case of incinerators or MEE, the flow measuring devices for mother liquor/ toxic effluent/ Non-biodegradable effluent, light diesel oil, Furnace oil, etc. i.e. fuel used for combustion, air used for combustion shall be separately provided. Incinerator temperature recording devices as well as gaseous flow measuring devices for scrubber shall also be provided. These data of temperature & flow should be recorded every day & submitted to GPCB on monthly basis.

3.23 Disposal system for storm water shall be provided separately. In no circumstances storm water shall be mixed with the industrial effluent.

3.24 Leachate from the hazardous solid waste, if any shall also be connected into a collection tank through leachate collection facilities and shall be treated along with industrial effluent and final treated effluent shall be discharged to the GIDC SewerLine-DahejVilayat Pipeline/ Common Disposal system.

3.25 If the GIDC SewerLine- DahejVilayat Pipeline/ Common Disposal systemProject authority terminates the membership of Pipeline Project, the member unit shall have to close down the manufacturing activities/industrial operation of the process plant immediately until the membership is resumed.

3.26 The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environment safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell / Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issued. These Cells also coordinate the exercise of environmental audit and preparation of environmental statements.

3.27 The Environmental audit shall be carryout yearly, if applicable. The environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

3.28 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5 meters width is developed.

3.29 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consents form/ order should immediately be intimated to this Board.

3.30 The Board reserves the right to review and/or revoke the consent and / or make modifications in the conditions which it seems fit in accordance with provisions of Water Act-1974.

**4. CONDITIONS UNDER THE AIR ACT:**

Outward No:6010104, Dt:10/2014

4.1 The following shall be used as fuel:

| SR NO | FUEL | Existing | Proposed | Total |
|---|---|---|---|---|
| 1 | Natural Gas | 100 NM3/day | -- | 100 NM3/day |
| 2 | HSD | 5 T/day | 30 T/day | 35 T/day |
| 3 | Briquette | 20 T/day | 20 T/day | 40 T/day |
| 4 | FO | 50 T/day | (-)50 T/Day | -- |

Note: Unit shall not use furnace oil

4.1.1 The flue gas emission through stack shall conform to the following standards:

| Sr no | Stack attached to | Stack height (m) | APCM | Parameter | Permissible limit |
|---|---|---|---|---|---|
| 1 | Boiler-1 (3.45 TPH) | 30 common stack | -- | PM<br>$SO_2$<br>$NO_X$ | 150 mg/NM3<br>100 ppm<br>50 ppm |
| 2 | Boiler-2 (3.45 TPH) (standby) | | -- | | |
| 3 | Boiler-3 (8 TPH) | 30 | Bag Filters, Wet Scrubber, Cyclone, Spark arrestor etc | | |
| 4 | DG Sets - 02 Nos (Cap. 1250 KVA + 625 KVA) | 15 | -- | -- | |

4.2 The Process emission through various stacks/ vent of reactors, process, vessel shall conform to the following standards:

| Sr no | Stack attached to | Stack height (m) | APCM | Parameter | Permissible limit |
|---|---|---|---|---|---|
| 1 | Process Vent - 1 | 15 | Water Scrubber+ Caustic Scrubber | H2S | 5 mg/NM3 |
| 2 | Process Vent -2 | 15 | Water Scrubber + Acid Scrubber | NH3 | 30 mg/NM3 |
| 3 | Process Vent - 3 | 15 | Water Scrubber + Caustic Scrubber | HCl<br>SO2 | 20 mg/NM3<br>40 mg/NM3 |
| 4 | Process Vent - 4 | 15 | Water Scrubber + Caustic Scrubber | HCl | 20 mg/NM3 |
| 5 | Process Vent - 5 | 15 | Water Scrubber + Caustic Scrubber | HCl<br>SO2 | 20 mg/NM3<br>40 mg/NM3 |
| 6 | Process Vent - 6 | 15 | Water Scrubber + Caustic Scrubber | H2S | 5 mg/NM3 |
| 7 | Process Vent - 7 | 15 | Water Scrubber + Caustic Scrubber | HCl<br>SO2<br>Cl2 | 20 mg/NM3<br>40 mg/NM3<br>9 mg/NM3 |
| 8 | Process Vent - 8 | 15 | Water Scrubber + Caustic Scrubber | HCl<br>SO2<br>Cl2 | 20 mg/NM3<br>40 mg/NM3<br>9 mg/NM3 |

Outward No:601404,21/09/2021

GPCB

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4.3 The concentration of the following parameters in the ambient air within the premises of the unit shall not exceed the limits specified hereunder.

| Sr. No. | Parameters | Permissible Limit (microgram /m³) | |
|---|---|---|---|
| | | Annual | 24 Hours Average |
| 1. | Particulate Matter ($PM_{10}$) | 60 | 100 |
| 2. | Particulate Matter ($PM_{2.5}$) | 40 | 60 |
| 3. | Oxides of Sulphur ($SO_x$) | 50 | 80 |
| 4. | Oxides of Nitrogen ($NO_x$) | 40 | 80 |

- **Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.**
- **24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.**

4.4 Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified as above.

4.5 The consent to operate the industrial plant shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified as above.

4.6 Unit shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

4.7 Unit shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

4.8 All efforts shall be made to control VOC emissions and odor problem, if any.

4.9 Total control of odor nuisance from the plant premises, shall be achieved & maintained by the unit continuously

4.10 Unit shall install continuous / online monitoring system in the stacks and shall transmit online data so generated simultaneously to GPCB and CPCB as well for the parameters such as PM, SO2, NOx, NH3, HCl, other sector specific parameters etc., if applicable as per CPCB guideline.

**5 GENERAL CONDITIONS: -**

5.1 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consents form/ order should immediately be intimated to this Board.

5.2 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of **5** meters width is developed.

Outward No:6014108,21/09/2021

5.3 Unit shall put up at the entrance a board displaying the name of unit, particulars of the products/ process and the name of proprietor/partners /directors of the unit and the electricity consumer number as on the record of DGVCL.

**6. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 6(2)).**

6.1 Number of authorization: **AWH-113914 date of Issue 26/07/2021.**

6.2 **M/s.Rallis India Limited**is hereby granted an authorizationtooperatefacilityfor following hazardous wastes on the premises situated at **PLOT NO: Z-110, Dahej SEZ-2, Taluka: Vagra, DIST: BHARUCH.**

| Sr. No. | Name of Haz. Waste | Category Number | Quantity in MT/Year | Facility |
|---|---|---|---|---|
| 1 | Used/ Spent Oil | 5.1 | 5 | Collection, Storage, Transportation & Disposal by reuse/selling to registered re-refiner. |
| 2 | Process Waste | 29.1 | 4000 | Collection, Storage, Transportation & Disposal to Common incineration at BEIL/SEPPL or co-processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 3 | ETP Sludge | 35.3 | 7500 | Collection, Storage, Transportation & Disposal to Common TSDF at BEIL/SEPPL or co-processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 4 | Date-expired and off - specification pesticides | 29.3 | 10 | Collection, Storage, Transportation & Disposal to Common incineration at BEIL/SEPPL or co-processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 5 | Discarded Containers | 33.1 | 35000 Nos | Collection, Storage, Decontamination, Transportation , Disposal by selling to authorized decontamination facility or common facility of BEIL, Dahej |
| 6 | Discarded bags/ liners | 33.1 | 20 | Collection, Storage, Decontamination, Transportation , Disposal by selling to authorized decontamination facility or common facility of BEIL, Dahej |
| 7 | Distillation residue from contaminate organic solvents | 36.1 | 100 | Collection, Storage, Transportation & Disposal to Common incineration at BEIL/SEPPL or co-processing at Ultra Tech Cement limited, Shree Cement or pre-processing at RSPL, GSPL |
| 8 | Spent Sulfuric Acid about (30%) | 29.6 | 12000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 9 | Spent Acid | 29.6 | 3000 | Collection, Storage, Transportation & Disposal |

Outward No:601404, 21/09/2021

GPCB

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| | | | | |
|---|---|---|---|---|
| | (35%) | | | by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 10 | NaSH Solution (20%) | B37 | 718 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 11 | Sodium Sulfate | B36 | 3000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 12 | Sodium Sulphite | B15/ B23/ B36 | 800 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 13 | Sodium Bi Sulphate | B23 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 14 | Ammonium Chloride | A10/ B15 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 15 | Ammonium Sulphate | A10/ B15 | 500 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 16 | HCl Solution | 29.6/ B15 | 1650 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 17 | AlCl3 Solution | B10 | 2820 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 18 | Recovered Solvent | 29.4/ B28 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having |

Outward No:601404, 21/09/2021

| | | | | |
|---|---|---|---|---|
| | | | | authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 19 | Ammonium Acetate | A10/ B15 | 400 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 20 | Spent KOH | B32 | 100 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 21 | Spent Acetic Acid | 29.6/ B15 | 700 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 22 | Sodium Iodide | B18 | 300 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 23 | Potassium Sulphate | B36 | 300 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 24 | Potassium chloride | B36 | 1260 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 25 | Sodium Chloride | B36 | 1000 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 26 | Sodium Phosphate | B35 | 1200 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |
| 27 | Phosphoric Acid | 29.6/ B15 | 950 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 |

Outward No:601404, 21/09/2021

GPCB

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| | | | | |
|---|---|---|---|---|
| | | | | permission to receive this waste after making MOU. |
| 28 | Sodium Nitrate | B36 | 920 | Collection, Storage, Transportation & Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste after making MOU. |

6.3 The authorization is granted to operate a facility as above.
6.4 The authorization shall be in force for a period up to **15/04/2026**.
6.5 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

7. **TERMS AND CONDITIONS OF AUTHORISATION:**

7.1 The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
7.2 The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the Gujarat Pollution Control Board.
7.3 The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
7.4 Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
7.5 The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
7.6 The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
7.7 It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
7.8 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
7.9 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
7.10 The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
7.11 The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
7.12 An application for the renewal of an authorization shall be made as laid down under Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016.
7.13 Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
7.14 Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

Outward No: 601841/1/09/2021

7.15 Unit shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No. 657 of 1995 dated 14th October 2003.

7.16 Unit shall have to display on-line data outside the main factory gate with regard to and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises.

7.17 Unit shall have to manage used or spent oil; empty or discarded barrels / containers / liners contaminated with hazardous chemicals / wastes, process waste as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986 and shall apply Authorization for all applicable waste.

**For and on behalf of**
**GUJARAT POLLUTION CONTROL BOARD**

**(P.B.PATEL)**
**DY. ENVIRONMENT ENGINEER**

Outward No:601404,21/09/2021

| Lab ✓ | ECG ✓ | Spiro ✓ | USG ✓ |
|---|---|---|---|
| EYE ✓ | Audio ✓ | Phy ✓ | |

(M)

# Baroda Heart & Multispeciality Hospital

BHMSH

Panchbatti, Station Road, Bharuch
Ph.:260551, 260552,260553 Fax No. (02642) 260553

## PERSONAL HEALTH RECORD

| Reg. No. | 10 |
|---|---|

| Rallis India Limited | | | S/O : Dr. Namrata Patil | | |
|---|---|---|---|---|---|
| EC No: | GHJ2240 | DEPARTMENT | Production | Date: | 09/01/2024 |
| NAME : | Raj Bhimani | | | AGE : | 24 / m |

### Personal History:-

| | | | | | |
|---|---|---|---|---|---|
| Appetite | Adequate / | Smoking | YES / (NO) | Tobacco | YES / (NO) |
| Sleep | Good / | Alcohol | YES / (NO) | | |
| Bladder | Regular / | Life Style | ✓ Active / ~~N/A~~ | | |
| Bowels | Regular / | Diet | (VEG) / MIX | | |
| Drug History | NA | | | | |
| Past History | NA | | | | |
| Family History | NAD | | | | |
| Complain: | No any such complain | | | | |

### General Examination:-

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Height: | 164 | CM | Blood Pressure: | 100/70 | / mm of HG | BMI | 17.2. |
| Weight: | 50.6 | KG | Pulse: | 92. | /Min | Value | Underweight |

### Vision Test:-

| Acuity of Vision | | RIGHT EYE | LEFT EYE | Colour Vision |
|---|---|---|---|---|
| Without Glass | Far Vision | 6/12 | 6/12 | Normal |
| | Near Vision | N6 | N6 | |
| With Glass | Far Vision | 6/6 | 6/6 | |
| | Near Vision | N6 | N6 | |

### Other Examination:-

| | |
|---|---|
| ECG ✓ | NSR,WNL / |
| Audiometry Test ✓ | Normal / |
| Pulmonary Function Test ✓ | Normal / |
| USG ✓ | NAD / |
| Advise | Normal |

| Stamp/Signature MD Physician | Baroda Heart & Multi Speciality Hospital<br>DR. SMIT VASAVA<br>P.G.C.I.H.<br>G-037 |
|---|---|

675 09/01/24 10:58

HR : 92 bpm BP : ____ / ____ mmHg

Interpretation : (Minnesota Code)
ECG within Normal Limits.

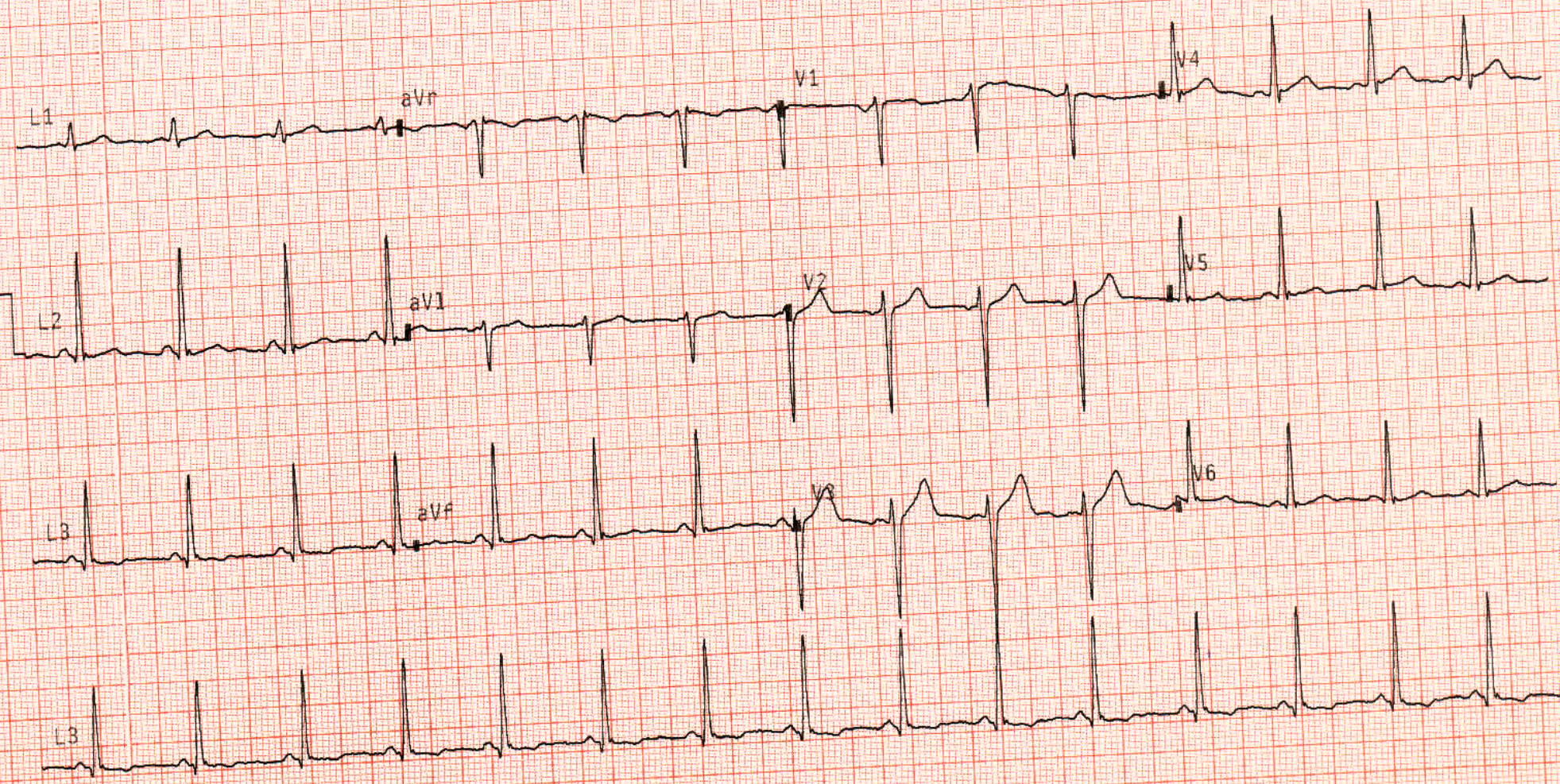
NIK RAJ BHAMANI | Age - 20 y/m

9/1/24.

Room :
ID :000
Name :
Gender :
Height :000 (cm) Age :000 (Yrs) Weight:000(Kg)

Axes (deg)
P : 5
QRS: 86
T : 46

Intervals (msec)
PR:138, QRS: 78
QT:323, QTc:400
ST: 34




* Unconfirmed report. Kindly correlate clini

# Muskan
## PATHOLOGY LABORATORY

1st Floor, Adarsh Market,Above TVS Show Room, Panch Batti, BHARUCH-392 001.

**Dr. Suresh D. Rao** M.D. (Path.)
Reg. NO. G - 10325
(Lab.) 263290 EMERGENCY ON CALL


- Time: Mon. to Sat.:8.00 a.m to 8.00 p.m Sun.:9.00 a.m to 1.00 p.m
- Haematology is being done on fully automatic 5-part Cell Counter MEK-7300
- Biochemistry is being done on fully auto chemistry analyser SELECTRA PROXS
- Hormonal Assay is done on • Maglumi - 600 • Computerised Reporting

**CLINICAL PATHOLOGY , CYTOLOGY , HISTOPATHOLOGY & MICROBIOLOGY CENTER**

**Name** : RAJ BHIMANI
**Ref By** : C/O BHMSH

**Age/Sex** : 24 Yrs./M
**Date** : 09/01/2024
**Report ID.** : 110

## HAEMOGRAM

| TEST | | RESULT | UNIT | METHOD | REFERENCE INTERVAL |
|---|---|---|---|---|---|
| **BLOOD COUNTS & INDICES** | | | | | |
| Haemoglobin | : | 16.00 | gm% | | 13.5 - 17.0 gm% |
| Total RBC | : | 4.90 | mill/cmm | | 4.6 - 6.2 mill/cmm |
| PCV | : | 48.00 | % | | 40 - 54 % |
| MCV | : | **97.96** | fL | | 80 - 96 fL |
| MCH | : | **32.65** | pg | | 27 - 31 pg |
| MCHC | : | 33.33 | % | | 32 - 36 % |
| Total WBC | : | 6,600 | /cmm | | 4,000 - 11,000/cmm |
| Platelet Count | : | 2,97,000 | /cmm | | 1.5 - 4.0 Lac/cmm. |
| **DIFFERENTIAL LEUCOCYTES COUNT** | | | | | |
| Neutrophils | : | **72** | % | | 55 - 70 % |
| Lymphocytes | : | 24 | % | | 20 - 40 % |
| Eosinophils | : | 02 | % | | 01 - 06 % |
| Monocytes | : | 02 | % | | 02 - 08 % |
| **NEUTROPHIL : LYMPHOCYTE** | | | | | |
| Ratio | : | 3.00 | | | |
| **ERYTHROCYTES SEDIMENTATION RATE** | | | | | |
| ESR After 1st Hour | : | 6 | mm | Westergren | 01 - 07 mm |
| Blood Group | : | " A " | | | |
| Rh Factor (Anti D.) | : | " POSITIVE " | | | |

*By 5 Part Hematology Analyzer : MEK - 7300 K*

End Of Report

**Thanks For Reference**

**Dr. Suresh D Rao**
M.D.(Path)

# Muskan
## PATHOLOGY LABORATORY

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**CLINICAL PATHOLOGY , CYTOLOGY , HISTOPATHOLOGY & MICROBIOLOGY CENTER**

**Name** : RAJ BHIMANI
**Ref By** : C/O BHMSH

**Age/Sex** : 24 Yrs./M
**Date** : 09/01/2024
**Report ID.** : 110

## BIO-CHEMISTRY

| TEST | | RESULT | UNIT | REFERENCE INTERVAL |
|---|---|---|---|---|
| Blood Urea | : | 29.00 | mg/dl | 10 - 50 mg/dl |
| Creatinine | : | 0.89 | mg/dl | 0.3-1.4 mg/dl |
| S. Cholesterol | : | 170.00 | mg/dl | Upto 200 mg/dl |
| Random Blood Glucose (RBS) | : | 74 | mg/dl | Upto 127 mg/dl |

*By Fully Auto Biochemistry Analyzer : Selectra PRO XS*

## BIO-CHEM PROFILE

| | | | | |
|---|---|---|---|---|
| RBC-Cholinesterase | : | 1326 | U/L | 900 - 1400 U/L |

## Hb A1C REPORT

| | | | | |
|---|---|---|---|---|
| Hb A1C | : | 5.4 | % | Non Diabetic : 4.3 - 6.3 %<br>Good Control : 6.4 - 7.5 %<br>Moderate Control : 7.5 - 9.0 %<br>Poor Control : 9.0 % & Above |
| Avg. Blood Glucose Level | : | 109 | mg/dl | |

## MALE REPRODUCTIVE HORMONES ASSAY

| | | | | |
|---|---|---|---|---|
| Testosterone | : | 269.00 | ng/dL | 175.00 - 781.00 ng/dL |

*Done on Fully Automated Fluorescent Enzyme Immunoassay: MINI VIDAS*

End Of Report

**Thanks For Reference**

**Dr. Suresh D Rao**
M.D.(Path)

# Muskan
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**CLINICAL PATHOLOGY , CYTOLOGY , HISTOPATHOLOGY & MICROBIOLOGY CENTER**

**Name** : RAJ BHIMANI
**Ref By** : C/O BHMSH

**Age/Sex** : 24 Yrs./M
**Date** : 09/01/2024
**Report ID.** : 110

## LIVER FUNCTION TEST

| TEST | RESULT | UNIT | REFERENCE INTERVAL |
|---|---|---|---|
| **S. BILIRUBIN** | | | |
| Total | : 0.63 | mg/dl | 0 - 1.0 mg/dl |
| Direct | : 0.30 | mg/dl | up to 0.3 mg/dl |
| Indirect | : 0.30 | mg/dl | 0.1 - 1.0 mg/dl |
| S. Alk. Phosphatase | : 134 | U/L | Adult : up to 290 U/L<br>Children: up to 1200 U/L |
| S.G.P.T. | : 24 | U/L | 10 - 40 U/L |
| S.G.O.T. | : 29 | IU/L | up to 40 IU/L |
| **SERUM PROTEIN** | | | |
| Total Protein | : 7.90 | g/dl | 6.6 - 8.3 g/dl |
| Albumin | : 4.40 | g/dl | 3.5 - 5.0 g/dl |
| Globulin | : 3.50 | g/dl | 2.3 - 3.5 g/dl |
| A.G. Ratio | : 1.3 | | 2.5 - 1.2 : 1 |

*By Fully Auto Biochemistry Analyzer : Selectra PRO XS*

End Of Report

**Thanks For Reference**

**Dr. Suresh D Rao**
M.D.(Path)

# Muskan
## PATHOLOGY LABORATORY
1st Floor, Adarsh Market,Above TVS Show Room, Panch Batti, BHARUCH-392 001.

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**CLINICAL PATHOLOGY , CYTOLOGY , HISTOPATHOLOGY & MICROBIOLOGY CENTER**

**Name** : RAJ BHIMANI
**Ref By** : C/O BHMSH

**Age/Sex** : 24 Yrs./M
**Date** : 09/01/2024
**Report ID.** : 110

## EXAMINATION OF URINE

| TEST | | RESULT | UNIT |
|---|---|---|---|
| Sample | : | RANDOM | |
| **PHYSICAL EXAMINATION** | | | |
| Quantity | : | 35 | ml |
| Colour | : | PALE YELLOW | |
| Transperancy | : | CLEAR | |
| Specific Gravity | : | 1.015 | |
| pH | : | ALKALINE | |
| **CHEMICAL EXAMINATION** | | | |
| Albumin | : | ABSENT | |
| Sugar | : | ABSENT | |
| Acetone | : | ABSENT | |
| Bile Salts | : | ABSENT | |
| Bile Pigments | : | ABSENT | |
| Urobilinogen | : | NORMAL | |
| Blood | : | ABSENT | |
| **MICROSCOPIC EXAMINATION** | | | |
| Pus Cells / h.p.f. | : | OCCASIONAL | |
| R.B.C. / h.p.f. | : | 2-4 | |
| | : | (Intact) | |
| Epithelial / h.p.f. | : | 2-4 | |
| Crystals / h.p.f. | : | ABSENT | |
| Amorphous Material | : | ABSENT | |
| Cast | : | ABSENT | |
| Bacteria | : | -- | |
| Trichomonas | : | ABSENT | |
| Spermatozoa | : | ABSENT | |

End Of Report

**Thanks For Reference**

**Dr. Suresh D Rao**
M.D.(Path)

# MATESHREE ENT. HOSPITAL

# AUDIOGRAM

DR. GAURANG JOSHI
D.L.O.M.S. (ENT)
CIH
C-15, Capital Business Centre,
Opp. Central Bank of India,
Panch Batti, Bharuch-392 001.
Phone : (H) 269880

Code No. : 10 Date : 9/1/24

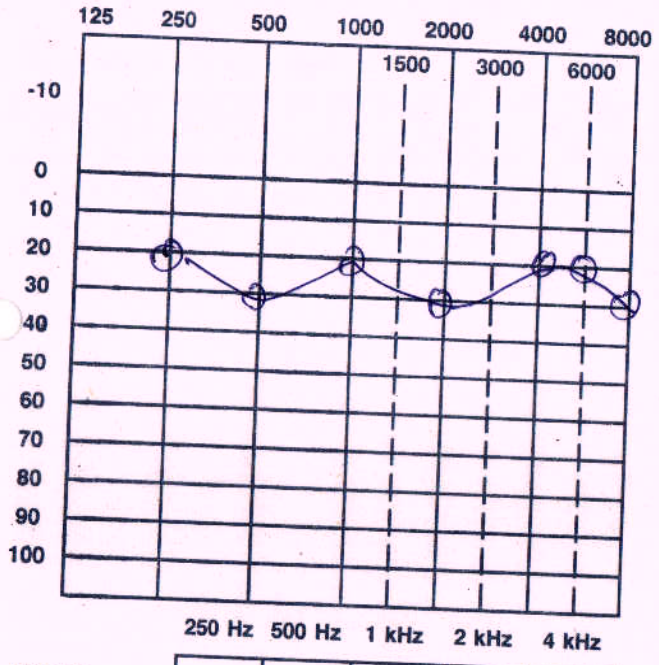
Audiogram of Raj Bhimani

Age 24 Yrs. Sex M Ref. by

Occupation So

Address 169

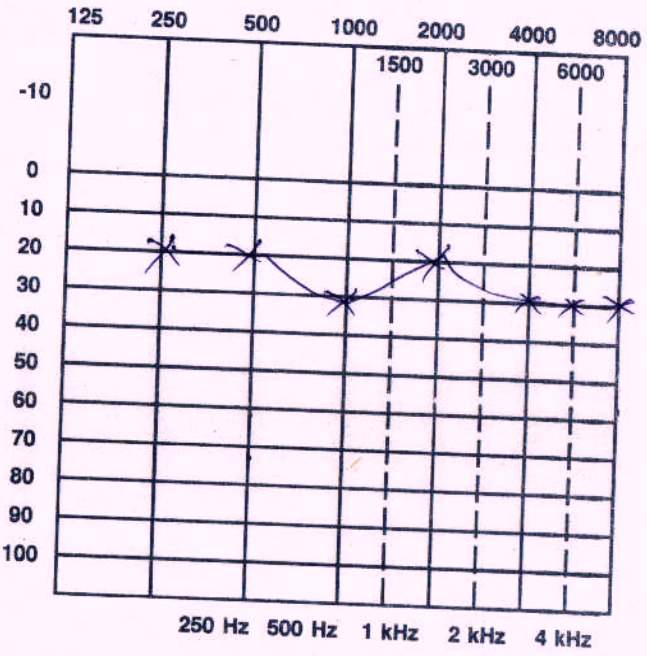
**RIGHT**




**WEBER**
Lateralized to

| | A.C. | B.C. | A.C. MASK | B.C. MASK | NOT HEARD |
|---|---|---|---|---|---|
| R | O | < | △ | ] | O ↓ |
| L | X | > | □ | [ | X ↓ |

**LEFT**




Clinical Findings

Comments B/L Normal

Dr. Gaurang Joshi
D.L.O.M.S. (ENT)
Reg. No. 2987
Mateshree ENT Hospital
C-15, Capital Business Center,
Panchbatti, BHARUCH-392001
Ph.: (H)02642-269880

**DR. GAURANG JOSHI**
**D.L.O.M.S. (ENT) CIH**

KRISHNA OCCUPATIONAL HEALTH CENTER

C- 15, CAPITAL BUSINESS CENTER ,PANCH BATTI,BHARUCH.

**Sr. No.** : R10 **Date :** 09-Jan-2024

| | | | | | |
|---|---|---|---|---|---|
| **ID** | : 47808 | **Height** | : 169 cms | **Ethnic Group** | : Indian |
| **Name** | : RAJ BHIMANI | **Weight** | : 50 kgs | **Predicted** | : Indian |
| **Age & Sex** | : 24 yrs old MALE | **BSA** | : 1.53 sqr mtr. | | |

**Smoker** :No

**History** :

**Medication** :

**Analysis** :Normal

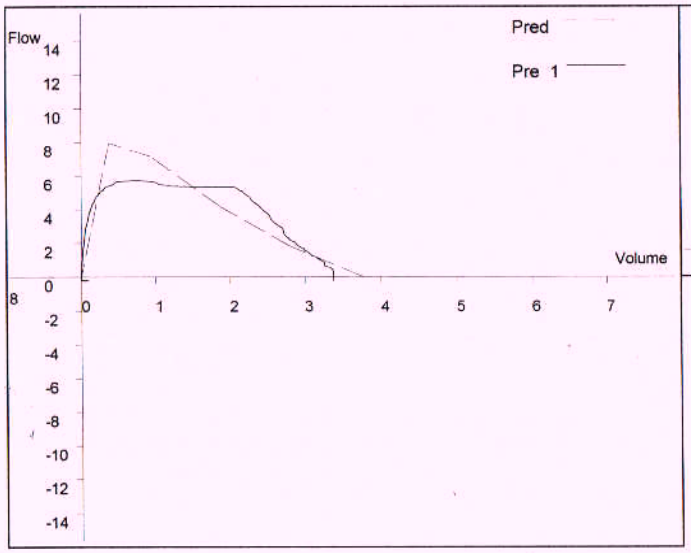
**Comment** :

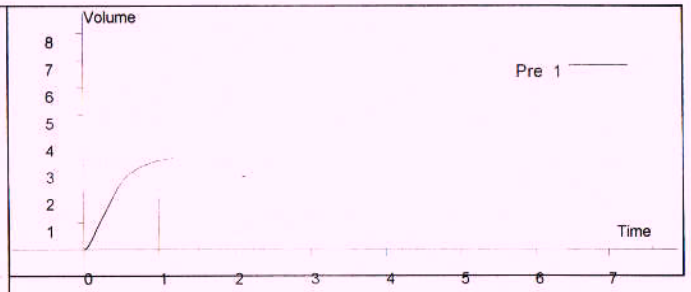
**Operator** :Administrator

**Spirometry Test Parameters**

| Abbr. | Unit | Pred. | Pre-Medication Obs. | Pre-Medication %Pred. | Post-Medication Obs. | Post-Medication %Pred. |
|---|---|---|---|---|---|---|
| **Best FVC** | l | 3.77 | 3.38 | 090 | 0.00 | 000 |
| **Best FEV1** | l | 3.11 | 3.30 | 106 | 0.00 | 000 |
| **Best PEF** | l/s | 7.95 | 5.71 | 072 | 0.00 | 000 |

| Abbr. | Unit | Pred. | Pre-Med. Obs. | Pre-Med. %Pred. | imp |
|---|---|---|---|---|---|
| **FVC** | l | **3.77** | **3.38** | **90.00** | --- |
| **FEV_1** | l | 3.11 | 3.30 | 106.00 | --- |
| **FEV_1/FVC** | % | 82.49 | 97.68 | 118.00 | --- |
| **PEF** | l/s | 7.95 | 5.71 | 72.00 | --- |
| **PEFT** | l/s | --- | 1.20 | --- | --- |
| **FMFT** | s | --- | 60.00 | --- | --- |




Dr. GAURANG JOSHI
MS., M.B., C.I.H.

Referring Doctor : ( GAURANG JOSHI (M.B.C.I.H.) )

(c) Mediline Equipment Ver:1.5.0

# Baroda Heart & Multi Speciality Hospital

Div of Shri Ram Krupa Medicare Pvt. Ltd.
CIN : U85110GJ1999PTC036935
An ISO 9001 : 2015 Certified Hospital

CAPITAL BUSINESS CENTRE, PANCHBATTI,
STATION ROAD, BHARUCH.
Tel : 02642 - 260551, 260552
Fax : 02642 - 260553
Email : barodahearthospital@gmail.com
Website : www.bhirc.com


10

**NAME OF PATIENT : RAJ BHIMANI**
**DATE : 23/12/2023**

## USG OF ABDOMEN & PELVIS

**Liver** appears normal in size, shape and echotexture.
No evidence of focal SOL or dilation of IHBR seen.
**Porta** hepatis is appears normal.
**Gallbladder** appears normal. No calculi seen.
**Pancreas** appears normal in size and echotexture.
**Spleen** appear normal in size of and shows normal echotexture.
**Aorta** appears normal. No para aortic lymphnodes seen.

**Right kidney** measured 99x46mm.
Cortex and collecting system of right kidney appears normal.
No calculi or obstructive uropathy.

**Left kidney** measured 85x49mm.
Cortex and collecting system of left kidney appears normal.
No calculi or obstructive uropathy.

**Bladder & prostate** appears normal. No calculi is seen
Terminal ileum and ceacum appears normal.
Appendix is not seen , due to bowel gas.
No evidence of collection or lump in RIF.
No evidence of free fluid or collection is seen in peritoneal spaces.

**COMMENTS : No significant abnormality detected**

**THANKS FOR REFERENCE.**

**Dr.PARITOSH.MODI.**
**CONSUTANT RADIOLOGIST**

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015 Certified Company
(GPCB RECOGNIZED SCHEDULED - II ENVIRONMENTAL AUDITOR)
MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate,
Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Noise Level Monitoring

| Report No | ULR-TC765323000003749F | Date of Report | 24.04.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1. | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2. | Sample ID | NLM/2023/600231 | 3. | Client Representative | Mr Ratnadeep Patel |
| 4. | Sample Date | 17.04.2023 | 5. | Sample Location | Different location |
| 8. | Analysis Commenced On | 17.04.2023 | 9. | Analysis Completed on | 17.04.2023 |
| 10. | Sampling Procedure | IS 9989-1981 (Reaffirmed 2018) | 11. | Sample Collected by | EET Team |
| 12. | Test Requirement | Ambient Air Noise Monitoring at different location within in premises. | | | |

## TEST RESULT

| Sr. No. | Location | Unit (SI) | Result | | | | Permissible Limit/ GPCB Norms | |
|---|---|---|---|---|---|---|---|---|
| | | | Day Time | | Night Time | | Day Time | Night Time |
| | | | Result | Time | Result | Time | 6 AM to 10 PM | 10 PM to 6 AM |
| 1 | Near Main Gate | dB(A) | 66 | 12:30 PM | 59 | 10:20 PM | 75 | 70 |
| 2 | Near Material Gate | dB(A) | 70 | 11:00 AM | 57 | 10:22 PM | 75 | 70 |
| 3 | Near Admin Building | dB(A) | 58 | 12:40 PM | 50 | 10:30 PM | 75 | 70 |
| 4 | Near Canteen Area | dB(A) | 64 | 12:50 PM | 53 | 10:35 PM | 75 | 70 |
| 5 | Near Utility Area | dB(A) | 66 | 12:20 PM | 62 | 10:41 PM | 75 | 70 |
| 6 | Near Metribuzin Plant | dB(A) | 63 | 12:05 PM | 58 | 10:55 PM | 75 | 70 |
| 7 | Near Pendimethylene Plant | dB(A) | 65 | 11:50 AM | 56 | 11:04 PM | 75 | 70 |
| 8 | Near ETP Area | dB(A) | 68 | 11:20 AM | 62 | 11:15 PM | 75 | 70 |
| 9 | Near Hydrogen Plant | dB(A) | 65 | 11:40 AM | 58 | 11:20 PM | 75 | 70 |
| 10 | Near MEE Area | dB(A) | 68 | 11:30 AM | 64 | 11:31 PM | 75 | 70 |
| 11 | Near Boiler | dB(A) | 69 | 12:10 PM | 65 | 11:40 PM | 75 | 70 |

[ND – Not Detect, BDL – Below Detection Limit]

**Note:** 1). Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

24/04/2023

A.D. Kathrayy
Analysed By

Checked By

Authorized Signatory

Eco Earth Technologies Ankleshwar

End of the Test Report

Eco Earth Technologies

**ECO EARTH TECHNOLOGIES**
(Analytical Laboratory Division)
ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015 Certified Company
(GPCB RECOGNIZED SCHEDULED - II ENVIRONMENTAL AUDITOR)
MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate, Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Noise Level Monitoring

| Report No | EET225823000014225 | Date of Report | 30.12.2023 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1. | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2. | Sample ID | NLM/2023/600833 | 3. | Client Representative | Mr Ratnadeep Patel |
| 4. | Sample Date | 25.12.2023 | 5. | Sample Location | Different location |
| 8. | Analysis Commenced On | 25.12.2023 | 9. | Analysis Completed on | 25.12.2023 |
| 10. | Sampling Procedure | IS 9989-1981 (Reaffirmed 2018) | 11. | Sample Collected by | EET Team |
| 12. | Test Requirement | Ambient Air Noise Monitoring at different location within in premises. | | | |

## TEST RESULT

| Sr. No. | Location | Unit (SI) | Result | | | | Permissible Limit/ GPCB Norms | |
|---|---|---|---|---|---|---|---|---|
| | | | Day Time | | Night Time | | Day Time | Night Time |
| | | | Result | Time | Result | Time | 6 AM to 10 PM | 10 PM to 6 AM |
| 1 | Near Main Gate | dB(A) | 68 | 01:00 PM | 60 | 10:10 PM | 75 | 70 |
| 2 | Near Material Gate | dB(A) | 71 | 11:30 AM | 58 | 10:15 PM | 75 | 70 |
| 3 | Near Admin Building | dB(A) | 59 | 01:10 PM | 52 | 10:20 PM | 75 | 70 |
| 4 | Near Canteen Area | dB(A) | 63 | 01:20 PM | 55 | 10:25 PM | 75 | 70 |
| 5 | Near Utility Area | dB(A) | 65 | 12:50 PM | 63 | 10:35 PM | 75 | 70 |
| 6 | Near Metribuzin Plant | dB(A) | 64 | 12:55 PM | 59 | 10:45 PM | 75 | 70 |
| 7 | Near Pendimethylene Plant | dB(A) | 66 | 12:45 PM | 57 | 10:50 PM | 75 | 70 |
| 8 | Near ETP Area | dB(A) | 67 | 11:40 AM | 61 | 11:00 PM | 75 | 70 |
| 9 | Near Hydrogen Plant | dB(A) | 64 | 12:00 PM | 59 | 11:10 PM | 75 | 70 |
| 10 | Near MEE Area | dB(A) | 67 | 11:50 AM | 65 | 11:20 PM | 75 | 70 |
| 11 | Near Boiler | dB(A) | 70 | 12:40 PM | 66 | 11:30 PM | 75 | 70 |

[ND – Not Detect, BDL – Below Detection Limit]

Note: 1).Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3).The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A D Kathiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

ECO EARTH TECHNOLOGIES
(Analytical Laboratory Division)
ISO 9001:2015, ISO 45001:2018 & ISO 14001:2015 Certified Company
(GPCB RECOGNIZED SCHEDULED - II ENVIRONMENTAL AUDITOR)
MoEF&CC /CPCB RECOGNIZED LABORATORY UNDER ENVIRONMENT (PROTECTION) ACT, 1986
Plot No. 3202/A/2/1, T-1, Multilevel Shed, Near Advance Paint, GIDC Ind. Estate,
Ankleshwar - 393 002, Dist. Bharuch, Gujarat, India. : +91 9601758907, 9409133000

# Test Report / Certificate

## Noise Level Monitoring

| Report No | EET225824000002783 | Date of Report | 15.03.2024 |
|---|---|---|---|

## SAMPLE DETAILS

| | | | | | |
|---|---|---|---|---|---|
| 1. | Name & Address of Company | M/S RALLIS INDIA LIMITED<br>PLOT NO. Z-110, SEZ – II, DAHEJ 392130<br>TAL : VAGRA, DIST :BHARUCH, GUJARAT, INDIA | | | |
| 2. | Sample ID | NLM/2024/600159 | 3. | Client Representative | Mr Ratnadeep Patel |
| 4. | Sample Date | 07.03.2024 | 5. | Sample Location | Different location |
| 8. | Analysis Commenced On | 07.03.2024 | 9. | Analysis Completed on | 07.03.2024 |
| 10. | Sampling Procedure | IS 9989-1981 (Reaffirmed 2018) | 11. | Sample Collected by | EET Team |
| 12. | Test Requirement | Ambient Air Noise Monitoring at different location within in premises. | | | |

## TEST RESULT

| Sr. No. | Location | Unit (SI) | Result | | | | Permissible Limit/ GPCB Norms | |
|---|---|---|---|---|---|---|---|---|
| | | | Day Time | | Night Time | | Day Time | Night Time |
| | | | Result | Time | Result | Time | 6 AM to 10 PM | 10 PM to 6 AM |
| 1 | Near Main Gate | dB(A) | 68 | 11:45 AM | 62 | 09:10 PM | 75 | 70 |
| 2 | Near Material Gate | dB(A) | 71 | 12:00 PM | 56 | 09:28 PM | 75 | 70 |
| 3 | Near Admin Building | dB(A) | 60 | 11:28 AM | 50 | 09:56 PM | 75 | 70 |
| 4 | Near Canteen Area | dB(A) | 63 | 12:32 PM | 51 | 10:08 PM | 75 | 70 |
| 5 | Near Utility Area | dB(A) | 66 | 11:30 AM | 62 | 10:15 PM | 75 | 70 |
| 6 | Near Metribuzin Plant | dB(A) | 64 | 12:12 PM | 53 | 10:37 PM | 75 | 70 |
| 7 | Near Pendimethylene Plant | dB(A) | 69 | 12:20 PM | 50 | 11:00 PM | 75 | 70 |
| 8 | Near ETP Area | dB(A) | 70 | 01:10 PM | 62 | 11:35 PM | 75 | 70 |
| 9 | Near Hydrogen Plant | dB(A) | 62 | 01:15 PM | 53 | 11:24 PM | 75 | 70 |
| 10 | Near MEE Area | dB(A) | 65 | 01:35 PM | 63 | 11:18 PM | 75 | 70 |
| 11 | Near Boiler | dB(A) | 70 | 01:18 PM | 60 | 10:46 PM | 75 | 70 |

[ND – Not Detect, BDL – Below Detection Limit]

Note: 1). Reports may be reproduced, if required, but only in full and only with written approval of the laboratory.
2). Re analysis sample will be done, if requested within in 15 days from the date of reporting of sample if the sample are not consumed during analysis.
3). The result reported above relate to the sample identified under sample details.

For, Eco Earth Technologies

A.D.Kothiriya
Analysed By

Checked By

Authorized Signatory

End of the Test Report

ICICI Lombard General Insurance Company Ltd.
ICICI LOMBARD HOUSE , 414, Veer Savarkar Marg,
Near Siddhi Vinayak Temple,Prabhadevi,Mumbai - 400 025.
Attached & forming part of
Policy no.4007/288901342/01/000
UIN: IRDAN115CP0014V01201920

**PUBLIC LIABILITY INSURANCE**
(UNDER PUBLIC LIABILITY INSURANCE ACT 1991)

*PREAMBLE*

ICICI Lombard General Insurance Company Limited ("the Company"), having received a Proposal and the premium from the proposer named in the Schedule referred to herein below, and the said Proposal and Declaration together with any statement, report or other document leading to the issue of this Policy and referred to therein having been accepted and agreed to by the Company and the Proposer as the basis of this contract do, by this Policy agree, in consideration of and subject to the due receipt of the subsequent premiums, as set out in the Schedule with all its Parts, and further, subject to the terms and conditions contained in this Policy, as set out in the Schedule with all its Parts that on proof to the satisfaction of the Company of the compensation having become payable as set out in Part I of the Schedule to the title of the said person or persons claiming payment or upon the happening of an event upon which one or more benefits become payable under this Policy, the Sum Insured/ appropriate benefit will be paid by the Company.

POLICY NO : 4007/288901342/01/000

ICICI Lombard General Insurance Company Ltd.
ICICI LOMBARD HOUSE , 414, Veer Savarkar Marg,
Near Siddhi Vinayak Temple,Prabhadevi,Mumbai - 400 025.
Attached & forming part of
Policy no.4007/288901342/01/000
UIN: IRDAN115CP0014V01201920

| PART I OF SCHEDULE | | | |
|---|---|---|---|
| 1 | Name of the insured | Rallis India Limited | |
| 2 | Mailing Address of the insured | 23rd Floor, Vios Tower, New Cuffe Parade, Off Eastern Freeway, Wadala Mumbai- 400037 | |
| 3 | Trade or Business of the insured | Manufacturers and Traders of:<br>a. Pesticides (Insecticides, Herbicides and Fungicides)<br>b. Seeds<br>c. Seed Treatment Chemicals<br>d. Fertilizers<br>e. Polymer PEKK<br>f. Solar Power | |
| 4 | Address of Premises insured | Premises Owned / Occupied By The Insured In India | |
| 5 | Paid Up Capital | INR 150,000,000 | |
| 6 | Policy period | April 01 , 2024 | March 31 , 2025 |
| | | Time: 00:00 hrs | 23.59 hrs |
| 7 | Turnover | INR 34,000,000,000 | |
| 8 | Limit of Indemnity<br>Aggregate One Year (AOY)<br>Any One Accident (AOA) | <br>INR 150,000,000<br>INR 50,000,000 | |
| 9 | Compulsory Excess | Nil | |
| 10 | Net Premium<br>Tax<br>ERF Amount<br>Stamp duty<br>Total Premium | INR 15,001<br>INR 2,700<br>INR 15,001<br>INR 1<br>INR 32,703 | |

| | | |
|---|---|---|
| 11 | Co-insurance details | ICICI LOMBARD 57.5<br>RELIANCE 20<br>BAJAJ 5<br>NATIONAL 5<br>ROYAL SUNDARAM 12.5 |
| 12 | Special conditions | 1. Completely Filled, Signed, Stamped And Dated Proposal Document<br><br>2. Communicable Disease Exclusion And Pandemic/Epidemic Exclusion<br><br>3. Insured's Declaration: (A) There Are No Claims Till Date (B) Till Date The Insured Is Not Aware Of Any Circumstance Or Loss That Can Lead To A Claim Under The Proposed Policy.<br><br>4. War Exclusion |
| 13 | Intermediary Details | TATA MOTORS INSURANCE BROKING &amp<br>ADVISORY SERVICES LTD, Telos Risk Management And Ins Broking Services P Ltd<br><br>200131492307, 201067852643 |
| 14 | Territorial & Jurisdiction | India |
| 15 | GSTIN Reg. No<br><br>ILGIC GSTIN Address | - |

ICICI Lombard General Insurance Company Ltd.
ICICI LOMBARD HOUSE , 414, Veer Savarkar Marg,
Near Siddhi Vinayak Temple,Prabhadevi,Mumbai - 400 025.
Attached & forming part of
Policy no.4007/288901342/01/000
UIN: IRDAN115CP0014V01201920

**For Juridical Person/Non-Individual Customers**

**Declaration for PEP to be updated in proposal form/ or in any other relevant documents & forms/ Systems**

Are you or any of the proposed applicants/beneficial owner a PEP* or Family member/ Close relatives/Associates of PEPs *?

**No**

"Politically Exposed Persons" (PEPs) are individuals who have been entrusted with prominent public functions by a foreign country, including the heads of States or Governments, senior politicians,

senior government or judicial or military officers, senior executives of state-owned corporations and important political party officials;"

The stamp duty of Rs. 0.50/- (Fifty Paise Only ) paid in cash or by demand draft or by pay order,vide Receipt/Challan No.CSD4520241123 dated. 22nd March 2024.

Signed for and on behalf of ICICI Lombard General Insurance Company Limited, at Mumbai on this date May 31, 2024.

Gaurav Arora

Authorised Signatory

GSTIN Reg. No : 27AAACI7904G1ZN

IL GIC GSTIN Address: Ground, First and Second Floor, ICICI Lombard House, 414 Veer Savarkar Marg, Prabhadevi, Mumbai 400025 Maharashtra

Description of services: General Insurance Business

HSN/SAC : 9971

Policy shall stand cancelled ab initio in the event of non-realization of the premium."

"Note- In case of renewal of the policy, policy benefit and terms & conditions of policy including premium may be subject to change."

# ENVIRONMENTAL AUDIT REPORT

## FOR AUDIT PERIOD

## April -2023
## To
## March-2024

Industry

**M/s. SRF Limited**

**Auditor**

SWARRNIM INSTITUTE OF TECHNOLOGY
35, World Business House, Opp. Parimal garden, Ellis bridge, Ahmedabad, Gujarat, 380006



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# PREFACE

We thank **Gujarat Pollution Control Board, Gandhinagar and Honorable High Court of Gujarat** for entrusting us to carry out Schedule – I Environmental Audit.

We thank the Environment team & Plant team personnel of **M/s., SRF Limited** for giving us their kind cooperation and helping us in carrying out the monitoring work.

- Environment Audit of **M/s. SRF Limited** was carried out by making three comprehensive visits and monitoring & analysis including Air, Wastewater, Noise and Solid Waste analysis.
- Grab samples of untreated and treated effluent were taken and analyzed during different seasons.
- The audit report is based on data furnished by industry and data collected by the audit team during visits to the industry.
- The data collected and information received from the industry like energy consumption, water consumption, material balance etc. with analysis of the effluent, Ambient air, stack emission, solid waste has been used in judging the adequacy and efficacy of Environmental Pollution Control Measures.



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# TABLE OF CONTENTS


| Sr. No. | DESCRIPTION | Page No. |
|---|---|---|
| 1. | Executive Summary | 6 |
| 2. | Observation, Recommendations, and their compliances | 7 |
| 3. | General (Section – A) | 9 |
| 4. | Production details (Section – B) | 10 |
| 5. | Water (Section – C) | 11 |
| 6. | Air (Section – D) | 13 |
| 7. | Hazardous Solid Waste (Section – E) | 14 |
| 8. | Site plan (Section –F) | 15 |
| 9. | Resource recovery (Section – G) | 15 |
| 10. | Health (Section – H) | 15 |
| 11. | Accident and Remedial measure (Section – I) | 16 |
| 12. | Safety measures (Section – J) | 16 |
| 13. | Remedial measures (Section – K) | 16 |
| 14. | Water Cess (Section – L) | 17 |
| 15. | Consultant (Section – M) | 17 |
| 16. | Declaration (Section – N) | 18 |
| 17. | EMS Adequacy / Efficiency certificate (Section – O) | 19 |
| 18. | Annexures | 24-124 |




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## LIST OF ANNEXURES


| SR. NO. | TITLE OF ANNEXURE | PAGE NO. |
|---|---|---|
| 1. | List of Board of Directors | 22 |
| 2. | Consolidated Consent & Authorization | 23 |
| 3. | List of products along with their capacity & purity | 52 |
| 4. | Month wise no. of days of operation | 56 |
| 5. | Month wise electricity consumption | 57 |
| 6. | Month wise production | 58 |
| 7. | Month wise raw material consumption | 59 |
| 8. | Details of manufacturing process with material | 65 |
| 9. | Details of water consumption | 86 |
| 10. | Water balance diagram | 87 |
| 11. | Details of wastewater generation | 88 |
| 12. | Details of effluent treatment with process, capacity of units & flow diagram | 90 |
| 13. | Month wise chemical consumption for ETP | 103 |
| 14. | Month wise energy consumption for ETP | 108 |
| 15. | Details of operator or chemist for ETP | 109 |
| 16. | Analysis report for water | 111 |
| 17. | Details flue gas stack & fuel consumption | 115 |
| 18. | Analysis report for air | 125 |
| 19. | Air pollution control measures | 125 |
| 20. | Details of hazardous waste | 129 |




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| | | |
|---|---|---|
| **21.** | **Detail of hazardous (solid) waste generation & disposal** | **133** |
| **22.** | **Analysis report for solid waste** | **139** |
| **23.** | **Noise Level dB (A) within the plant premises** | **141** |
| **24.** | **Total Pollution Load** | **142** |
| **25.** | **Site plan** | **143** |
| **26.** | **ISO certificates** | **144** |
| **27.** | **Membership certificates** | **145** |
| **28.** | **Details of health records** | **145** |
| **29.** | **Details of PLI policy** | **148** |
| **30.** | **On-site emergency plan** | **150** |
| **31.** | **The details in respect of Case/complaints under the Water Act-74, the Air Act-81 & the EPA-86** | **154** |
| **32.** | **Closures/Notice of direction/show cause notices issued in current and preceding years and corrective and preventive actions taken** | **154** |
| **33.** | **Compliance report** | **155** |
| **34.** | **Declaration** | **219** |




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## EXECUTIVE SUMMARY

The Environmental Audit Scheme was introduced by the Gujarat High Court vide its orders dated 20/12/96 & 13/3/97 and modified vide order dated 16/9/99, 22/04/2010 & 23/01/2015, **SWARRNIM INSTITUTE OF TECHNOLOGY** is nominated to carry out Environmental Audit work for the industries falling under Schedule - I category.

## INTRODUCTION

**M/s.** SRF Limited is located at D2/1, GIDC Phase II, P.C.P.I.R, Dahej, Bharuch – 392 130, Gujarat is company incorporated under the Company's Act 1956, with Registrar of Companies Gujarat. The company has its Registered Office in Mumbai.

## OBJECTIVES

**(1)** To check the Adequacy & Efficacy of the common effluent treatment plant, i.e. Wastewater, Air, solid waste, health, and safety systems of M/s. SRF Limited.
**(2)** To check various records of Environment Management System.
**(3)** To check whether M/s. SRF Limited meets all required norms of state regulatory agency that is Gujarat Pollution Control Board regarding environmental pollution control.

## OPERATIONAL BRIEFING:

The above-mentioned objectives have been fulfilled through meaningful inspection visits and environmental monitoring of M/s. SRF Limited and precise study of its manufacturing system & pollution control facilities.

- Most representative grab effluent samples, ambient air samples, air samples of stacks were taken, analyzed and reported in this report; noise pollution level was also measured using calibrated kit.
- Above mentioned samples were taken during the surprise visits of M/s. SRF Limited by our team at different intervals over appropriate period. Technical information regarding the ETP & details of other environmental management systems were provided by the management.
- The findings reported in this Audit report are entirely based on data furnished by the industry & data collected by the audit team during the audit surveys in the client factory, presuming that during our surveys all the EMS and manufacturing operations were at normal conditions. The auditors shall not be in a position to comment on the EMS and its performance for the period other than the period of audit surveys. Thus, the findings reported in this audit report are strictly limited to the period when the audit team conducted the surveys.

## OBSERVATIONS & RECOMMENDATIONS

## OBSERVATIONS:

1. M/s. SRF Ltd is an ISO 9000: 2015, ISO 14000: 2015 & ISO 45001:2018 certified organization having valid consent order No. AWH 123782 dt.06/04/23 which is valid up to 10/01/2027.



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2. We have observed all the parameters in Final outlet are within permissible limit as per CCA.
3. Industry has installed magnetic flow meters at final outlet for the quantity of treated effluent discharged to channel.
4. Industry has installed an online continuous monitoring system for treated effluent discharged to channel.
5. M/s. SRF Ltd has established well equipped advanced laboratory with advance instruments like TOC analyzer with well qualified staff.
6. Overall housekeeping is in Very Good condition.
7. All the Flue gas stacks were painted and well maintained throughout the year 2023-24.
8. Adequate hazardous waste storage area is available at site.

## RECOMMENDATIONS

1. Plantation in ETP area need to be improve.
2. Need to be provide RCC approach road for newly installed MEE plant.

## LAST YEAR'S AUDIT REPORT'S SUGGESTIONS / RECOMMENDATIONS AND THEIR COMPLIANC

| Sr. No. | Recommendations | Compliance status |
|---|---|---|
| 1. | Housekeeping Should be improved near AHF Plant | Complied |
| 2. | Specific Ambient air platforms should be provided with proper electric connections. | Complied |
| 3. | Adequate Porthole should be provided in AHF drying system 2. | Complied |
| 4. | Name plate should be given to every process and flue stack as per CCA names of the stacks. | Complied |
| 5. | Acidic fumes should be control near the AHF Plant | Complied |
| 6. | Industry should maintain the water consumption and discharge data separately for Domestic and Industrial purposes. | Complied |
| 7 | Unit should provide the water balance diagram in detail. | Complied |

**Gujarat Pollution Control Board,**
**Paryavaran Bhavan, Sector-10-A,**
**Gandhinagar – 382 010**
**Fax: (079) 23222784, (079) 23232161.**



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# ENVIRONMENTAL AUDIT
# for
# M/s. SRF Limited
# (Period from April 2023 to March 2024)



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| (A) | GENERAL | |
|---|---|---|
| 1 | Name of the Industry: | M/S. SRF Limited |
| 2 | Location: | D2/1, GIDC Phase II, P.C.P.I.R, Dahej, Bharuch – 392 130, Gujarat |
| 3 | Registered Office Address: | The Galleria, DLF Mayur Vihar, Unit No. 236 & 237, Second Floor Mayur Place, Noida Link Road, Mayur Vihar Phase I Extn, Delhi – 110 091. |
| 4 | Month & Year of establishment: | June 2012 |
| 5 | No. of workers employed:<br>Male/Female: | Total Workers: 3732 Nos.<br>Male: 3628 Nos. Female: 104 Nos. |
| 6 | No. of electrical connections with service numbers: | 1 Number of service connections from DGVCL, Connection No: 63029 with Contract demand 66 MVA. Industry has its own 40 MW captive power plant, operating in parallel with 220 KV DGVCL line. |
| | Total connected load | 188.110 MW |
| | Electric consumption per unit of product manufactured: | Please refer Annexure-5 |
| | Percentage Enhancement in Energy: | 23.37% reduction in specific Electrical Consumption (kW/MT) of Product |
| | Saving as Compared to Previous Year: | 260.48 kW/MT electrical consumption saved |
| 7 | Number of D.G. Set & their capacity: | Total 7 Nos. DG Sets<br>DG Set 1 & 2 : 600 kVA<br>DG Set 3 & 4 : 1010 kVA<br>DG Set : 3 x 4200 kVA |
| 8 | Name/Residential address of all directors/partners: | Please refer Annexure-1 |
| 9 | Telephone Nos:(Residential & Industrial) Fax No: | Please refer Annexure-1 |
| | E-mail of Industry: | info@srf.com |
| | E-mail Partners/Directors: | Please refer Annexure-1 |
| 10 | No. of shifts & timings: | General: 08:00 hrs. to 16:00 hrs.<br>1st Shift: 07:00 hrs. to 15:00 hrs.<br>2nd Shift: 15:00 hrs. to 23:00 hrs.<br>3rd Shift: 23:00 hrs. to 07:00 hrs. |
| 11 | Name & Address of the in charge of Environment/Safety Division/Cell/Unit: | Harendra Singh Dagur<br>(Executive Vice President - Site Head)<br>D2/1, GIDC Phase II, P.C.P.I.R., Dahej, Bharuch – 392130, Gujarat, India. |



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| | | |
|---|---|---|
| 12 | No. of days during which production activities were in operation during the Audit period covered: | Please refer Annexure – 4 |
| 13 | Has the industry obtained ISO 9000/ISO 14000/OSHAS 18000/Any other EM accreditation/Certification recognition? Give details. | ISO 9000: 2015, ISO 14000: 2015 & ISO 45001:2018 IMS Certificate No. IND.23.5093/IM/U Version: 1 Revision Date: 14-April-2023, validity up to 17-Apr-2026 obtained from Bureau Veritas.<br><br>Please refer Annexure- 25 |
| 14 | Whether the industry has adopted cleaner production/cleaner technology/CDM? Give details. | - |
| **B** | **PRODUCT DETAILS** | |
| 1 | Name of products(s) & capacity with Yield/purity per day. | Refer Annexure – 3 |
| 2 | Name of all by products and its quantity per day: | Not Applicable |
| 3 | Date of commencement of production for each product. Whether production is as per consented quantity: | Refer Annexure – 3 |
| 4 | All raw materials required per kg of the product(s): | Refer Annexure – 7 |
| 5 | Whether the manufacturing process is continuous or batch wise: | Batch as well as continuous process plants are in operation.<br>Refer Annexure – 6 |
| | Indicate the batch capacity: | |
| | If the process is in batch operation, no. of batches/month along with the duration of the completion of each batch: | |
| 6 | -Detailed manufacturing process with schematic flow diagram: -<br>-List of unit's operation & processes & with all chemical reactions along with the time required (in hrs) for completion of each unit operation/process and the total time for completion of the entire batch:<br>-Mass balance in respect of the quantity of water, input of raw materials and wastewater generation. | Refer Annexure – 8 |



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| C | WATER | |
|---|---|---|
| 1 | The quantity of water consumed per day as well as per tones of product manufactured: | Water Consumption: 10.1 KL/MT of Product<br>Refer Annexure – 9 |
| | (Attach water balance diagram) * over the last three years | Refer Annexure – 9 |
| 2 | The quantity of wastewater (trade effluent) generated per tones of each product per day, as well as per batch over the last 3 Years | Qty. of Wastewater Generated: 1.7 KL/MT of product.<br>Refer Annexure – 10 |
| 3 | The particulars of effluent treatment plant:<br>-Name and Size of each unit:<br>- Capacity of ETP:<br>- Flow diagram & Hydraulic diagram, of ETP to be submitted: | Refer Annexure –12 |
| | Whether lighting arrangement around ETP is provided: | Yes |
| | Whether separate energy meter is installed for effluent treatment plant. If yes, readings of the meter for consumption every month: | Yes, separate energy meter is Provided.<br>Refer Annexure –13 |
| | Whether flow meters are provided at the inlet and outlet of the ETP. Please indicate the type of the flow meter: | Yes, Magnetic Flow Meter is Provided at Inlet & Outlet |
| 4 | The method of disposal of final treated effluent and the point of disposal (Please attach sketch) | To Deep Sea via GIDC Drainage network<br>Refer Annexure –12 |
| 5 | The quality of trade effluent at the inlet and outlet of ETP and at various stages of treatment (Attach separate sheets): | Refer Annexure –11 |
| 6 | The quantity and quality of sewage and its method of treatment and disposal (Attach separate sheets): | The Sewage generation is about 221 m3/Day, and it is treated separately in sewage treatment plant, after treatment it is reused as green belt development.<br>Refer Annexure –12 |
| | a) As per norms: | Refer Annexure –12 |
| | b) Total pollution load*: | Refer Annexure –12 |
| 7 | The open area available for disposal of the effluent | Not applicable |
| 8 | Whether the quality of treated effluent meets the specified norms:- | Annexure-15 |



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| | | |
|---|---|---|
| | If no, the extent of deviation and reasons thereof | |
| 9 | Improvement in effluent quality and quantity since previous environmental audit based on performance evaluation of effluent management systems | Yes |
| | -If yes, provide details (Attach separate sheets): | Refer Annexure - 11 |
| 10 | Retrofitting Undertaken to Improve performance of ETP: | No |
| | -If yes, provide details: | NA |
| 11 | Major problems encountered during operation of effluent treatment facilities, if any and reasons thereof: | No |
| 12 | The details about the operator/chemist responsible for operation & maintenance of effluent treatment plant: | Refer Annexure - 14 |
| | Name of the operators/employees: | |
| | Qualification & Experience of each Operator/employee whether trained in such operation or not: | |
| | Salary of operators/employees. | |
| 13 | The current status of consent under the Water Act-1974 | Refer Annexure - 2 |
| **D** | **AIR** | |
| 1 | No. of the flue gas stacks their height (from ground level) nature & consumption of fuel: | Refer Annexure – 16 |
| 2 | The details pertaining to the stack monitoring facilities: | Adequate Stack Monitoring Facilities, with Platform, monkey ladders, safety harness approach steps are provided. |
| 3 | Number of process stacks, their height (from ground level) source, expected pollutants & the details pertaining to the provisions of stack monitoring facilities: | Refer Annexure – 16 |



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| | | |
|---|---|---|
| 4 | The quality of emission from each flue gas stack & the process stack & the extent of deviation from them: | Refer Annexure – 17 |
| 5 | The ambient air quality within the factory premises. Ambient air quality monitoring Stations outside the Industry? | Refer Annexure – 18 |
| 6 | The status of consent under the Air Act-1981 | Refer Annexure – 2 |
| 7 | The details of air pollution control measures for all process & flue gas stacks: | Refer Annexure –16 |
| 8 | Improvement in emission quality since previous environmental audit based on performance evaluation of air pollution management system. If yes, provide details. (Attach separate sheets) | Yes |
| 9 | Retrofitting Undertaken to improve emission quality. If yes, provide details: | No |
| 10 | Major problems encountered during operation of control device, if any and reasons thereof: | No |
| 11 | Total Pollution Load | Refer Annexure - 23 |
| **E** | **HAZARDOUS (SOLID) WASTE** | |
| 1 | The quantity, sources & composition of hazardous waste/solid waste from each process/sources over the last three years. (Total sludge generation per tonne of product): | Refer Annexure - 20 |
| | Whether it is as per the consented quantity: | Yes |



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| | | |
|---|---|---|
| 2 | The method of storage, treatment & disposal of hazardous/solid waste:<br>The details should include area of storage and disposal and whether storage and disposal system are covered and made impervious (pucca):<br>The quantity of Hazardous waste sent to TSDF.<br>Please also indicate how the quantity of hazardous /solid shall be reduced in next three months:<br>The data/information about leachate generation, quantity & characteristics and treatment facility: | Refer Annexure - 19<br>Refer Annexure – 21<br>(a) Proper storage area has been provided with impervious flooring, shed and also partitioned by brick wall with labelling for storage of different category define in CC&A. From storage area hazardous waste is send for incinerable / landfill to registered and/or designated TSDF/Recycler/Actual User. Collected leachate is taken into ETP and Solid waste sent to TSDF site<br>(b) Leachate is treated with Low TDS – Low Organic Stream |
| 3 | The status of authorization under the EPA-86 for solid waste | Refer Annexure - 2 |
| 4 | Plan, if any to reduce hazardous waste generation or its recycling. | We make all the efforts to reduce HW. |
| **F** | **SITE PLAN** | |
| | The site plan showing the location of effluent treatment plant, final point of disposal of effluent, sampling point, drainage line, stacks, solid waste storage, disposal area & green belt (its width) | Refer Annexure - 24 |
| **G** | **RESOURCE RECOVERY** | |
| 1 | The details regarding resource recovery including treated effluent for recycle/reuse from environmental pollution control system including effluent treatment plant: | Installed 4000 KLD Capacity UF/RO System for treatment of effluent generated from utility (cooling tower / boiler blow down, DM and Softener reject) and treated water reuse in cooling tower make-up/process. |
| | The details regarding resource recovery/by product recovery from manufacturing process by using cleaner production technology: | Plant is being upgraded continuously to minimize wastage.<br>In-house Research and Development efforts are continuously used to improve yields. |
| **H** | **HEALTH** | |
| 1 | Whether any hazard is involved in the manufacturing or from the work environment: Yes/No<br>If yes, provide details thereof: | Yes,<br>Noise, Pinch, Toxic, Corrosive. |



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| | | |
|---|---|---|
| 2 | Whether industry has pre-employment & periodical medical examination facilities: Yes/No<br>If yes, provide details thereof: | Refer Annexure – 26 |
| 3 | Whether health records are maintained regarding adverse effect on the health of workers: Yes/No<br>If yes, provide details thereof: | Refer Annexure – 26 |
| 4 | Whether industry has appointed a factory medical officer: Yes/No | Yes |
| | If yes; full-time or part-time. Include the details about the name, address and qualification of the factory medical officer | Dr. Ripalkumar Kiritkumar Patel (FMO), Full time, Bharuch, MBBS + AFIH<br>Dr. Sanjay Hansoti, MBBS + AFIH |
| 5 | Details of medical facilities available. Dispensary/Ambulance/Hospitals/First Aid box. | Occupational Health Centre with 2 Nos. Bed, AED, Suction Machine, Infusion pump, All type of antidotes as per SRF requirement & Designated Ambulance at site. The unit has tie up with healing touch Hospital, Baroda Heart Hospital, Apex Hospital, I-Q Hospital at Bharuch and Bhailal Amin General Hospital, Sterling Hospital, BAPS Hospital, Tricolor Hospital at Vadodara for immediate medical attention in the case of emergency. |
| 6 | Whether sanitary facilities like water closets, urinals, bathroom are provided & are satisfactory | Yes. Adequate & Satisfactory sanitary facilities are provided. |
| **I** | **ACCIDENTS** | |
| 1 | The details of accidents in the factory if any & remedial measures taken | No accident reported in the factory during FY 2023-24. |
| **J** | **SAFETY MEASURES** | |
| 1 | General Environment of the factory | Housekeeping Very **Good**<br>Dustiness **Good**<br>Lighting Very **Good**<br>Ventilation Very **Good** |
| 2 | Whether Following Appliance are provided to all persons | Goggles Yes, As per requirement<br>Gloves (Rubber + Cotton) Yes, As per requirement<br>Gumboot Yes, As per requirement<br>Helmet Yes, As per requirement<br>Skin Cream Yes, As per requirement<br>Soap Yes, As per requirement<br>Ear Plugs Yes, As per requirement<br>Face Masks Yes, As per requirement<br>Clothing Yes, As per requirement |
| 3 | The details of facilities for disaster management/gas leakage. | Self-contained breathing apparatus, Gas monitoring equipment's, Fire Extinguishers are available. |



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| | | |
|---|---|---|
| | | A safety manual has also been prepared. We have an on-site emergency plan and conduct mock drills periodically.<br>Refer Annexure- 28 |
| 4 | Whether on site/off site emergency plans are prepared and are being implemented/upgraded regularly; please give details | Refer Annexure- 28 |
| 5 | Whether records of occupational hazards are maintained? | Yes |
| 6 | Preventive measures adopted to minimize occupational hazard. | Closed loop systems are provided to avoid exposure to persons, PPEs are mandatory while working. |
| **K** | **REMEDIAL MEASURES** | |
| 1 | The details of sources; monitoring & measures taken for control of noise pollution in & around the industrial premises: | Control Measure: Anti vibration pads are being used for the rotary equipment like Air Compressors, Blowers etc.<br>The personal working in high noise background is being provided with Ear plugs & Muffs level.<br>Refer Annexure – 22. |
| 2 | The measures taken for prevention treatment & control of odour nuisance in & around the industrial premises: | We are handling chemicals in a closed loop system. |
| 3 | The Details in respect of cases/complaints under Water act-1974, The Air Act-1981 and the EPA-1986: | Refer Annexure - 29 |
| 4 | The compliance report with respect to all the conditions of NOC/Consent (Under all the Acts): | Refer Annexure - 30 |
| 5 | Incidents of spillages, leakages etc. and remedial measures thereof | No incident of spillage/leakage reported |
| 6 | Whether insurance policy obtained under PLI Act. Yes/No<br>-If yes, provide details | Yes.<br>Refer Annexure –27 |
| **L** | **WATER CESS** | |
| 1 | The details regarding payment of the Water Cess for the previous & current year | Not Applicable. |
| **M** | The Name and Address of the Consultant Engaged by the Company/ Industry | Swarrnim institute of technology, Ahmedabad. |



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## (N) DECLARATION

**It is hereby declared that all the information submitted in and with respect to this format is correct and we will be responsible for any lapse regarding incorrect or incomplete information.**

| | | | | |
|---|---|---|---|---|
| 1 | Mr. Harendra Singh Dagur<br>EVP – Site Head | | Dr. Savan Tank<br>Co-ordinator | |
| 2 | Mr. Kalpesh Jethva<br>VP - Manufacturing | | Dr. Parwathi Pillai<br>Chemical Engineer | |
| 3 | Mr. Praveen Mishra<br>AVP – Environment Head | | Ms. Brinda Govani<br>Environmental Engineer | |
| 4 | Mr. Mayurkumar Jadav<br>Manager - Environment | | Ms. Apeksha Brahmbhatt<br>Microbiologist | |

**Date:- 25/06/2024** **Place:- Swarrnim Institute of Technology, Ahmedabad**



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# THE ADEQUACY CERTIFICATE OF ENVIRONMENT MANAGEMENT SYSTEM

Swarrnim Institute of Technology, Ahmedabad is recognized by the GPCB, Gandhinagar under the Environmental Audit Scheme introduced by the Hon'ble High Court Gujarat, vide its Order GPCB/EA-277/329880 dated 13/10/2015 as an Environmental Auditor for the purpose of the auditing, having carried out Environmental Audit of,

**A)** **M/s. SRF Limited**
**B)** **Located at**: D2/1, GIDC Phase II, P.C.P.I.R, Dahej, Bharuch – 392 130, Gujarat
**C)** **Manufacturing products as under** :

## Manufacturing products:

| Sr. No. | Name of Product | Total Production as per CCA (MT/Annum) | Actual Production (MT/Annum) |
|---|---|---|---|
| 1 | Trifluoro Acetic Acid | 2000 | 1677.46 |
| **2** | Specialty Product | | |
| i | Tetrafluorobenzyl Alcohol | 9900 | 8300.66 |
| ii | Ethyldifluoroacetate | | |
| iii | Ethyl trifluoro acetate | | |
| iv | Ethyltrifluoroacetoacetate | | |
| v | Amino crotonate | | |
| vi | Trifluoroacetic anhydride | | |
| vii | Pentafluorobenzoic Acid | | |
| viii | Pyrazole acid | | |
| ix | Chloro trichloro methyl - cyclopentene | | |
| x | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline | | |
| xi | Fluoromethyl ester | | |
| xii | Diphenylphenol | | |
| xiii | Tetrafluoropropene- 1234yf | | |
| xiv | Isobutyl Acetophenon | | |
| xv | 2-Bromo-5-fluorobenzotrifluoride | | |
| xvi | 2, 2-Difluoroethyl amine | | |
| xvii | 2,3-Dichloro-5-trifluoromethyl-pyridine | | |
| xviii | N[1-{6-Chloro-3-pyridinyl) methyl)-2(1H)-pyridinylidene]-2,2,2, trifluoroacetamide | | |
| xix | (N-(4-fluorophenyl)-2-hydroxy-N-isopropyl-acetamide | | |
| 3 | 1,1,2,2-Tetrafluoroethyl methyl ether | 3000 | 1931.25 |
| 4 | Hexafluoropropylene | 500 | 0 |
| 5 | Ethyl Difluoroacetoacetate | 300 | 0 |
| 6 | Difluoromethanesulphonlychloride | 100 | 0 |
| 7 | 3-Trifluoromethylacetophenone | 1000 | 0 |
| 8 | Trifluoro methyl benzamide | 1700 | 1001.70 |



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| | | | |
|---|---|---|---|
| 9 | TrifluoroMethyl-2-EthoxyVinyl Ketone | 1000 | 0 |
| 10 | 2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester | 1500 | 743.17 |
| 11 | Pentafluorophenol | 150 | 0 |
| 12 | Monomethyl hydrazine | 3500 | 2862.60 |
| 13 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone) | 500 | 328.57 |
| 14 | Bromopentafluorobenzene | 200 | 0 |
| 15 | Methyl Hydroxy Pyrazole | 100 | 0 |
| 16 | 5-Bromo-2-2-difluoro-1-3-benzodioxide | 500 | 0 |
| 17 | Difluorobenzodioxole methyl ester | 20 | 0 |
| 18 | 2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)-benzenamine (DHA) | 500 | 0 |
| 19 | 2,4,5-Trifluorophenyl acetic acid | 50 | 10.55 |
| 20 | Methyl-2- Fluoroacrylate | 50 | 0 |
| 21 | Ethyl-Trifluoropyruvate | 50 | 0 |
| 22 | 2,3-dichloro pyridine | 0 | 0 |
| 23 | 5-Chloro-2,3-difluoropyridine | 600 | 0 |
| 24 | 3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylic Acid | 3500 | 0 |
| 25 | 4 Methoxycyclohexanone (4-MCH) | 600 | 203.24 |
| 26 | 2-amino-3-chloro-5-trifluoromethyl pyridine | 600 | 0 |
| 27 | Hydrazine Hydrate | 3500 | 0 |
| 28 | 2-methyl sulfonyl-5-(trifluoromethyl)- 1,3,4-thiadiazole | 600 | 179.67 |
| 29 | 1,3-Benzodioxole | 500 | 0 |
| **30** | **R&D Products** | 2000 | 1999.27 |
| **31** | **Chlorinated Compound** | | |
| i | Trichloroethylene | 150000 | 138473.30 |
| ii | Perchloroethylene | | |
| iii | Methyl Chloride | | |
| iv | Methylene Dichloride | | |
| v | Chloroform | | |
| vi | Carbon tetrachloride | | |
| **32** | Anhydrous hydrofluoric acid | 40000 | 30798.56 |
| **33** | Chlorotrifluoroethane (HCFC 133a) | 500 | 0 |
| **34** | **HFC Refrigerant** | | |
| i | 1,1,1,2- Tetrafluoroethene (HFC 134a) | 40000 | 33622.82 |
| ii | Pentafluoroethane (HFC 125) | | |
| iii | Difluoromethane (HFC-32) | | |
| iv | 1,1 difluoroethane (HFC-152a) | | |
| v | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a) | | |
| vi | Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404a) | | |
| vii | Refrigerant blend of difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) +1,1,1,2 Tetrafluroethane (HFC 134a) (R407c) | | |



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| | | | |
|---|---|---|---|
| viii | Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a) | | |
| 35 | R600a (Butane) | 1000 | 301.64 |
| 36 | Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22) | 500 | 0 |
| 37 | Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME) | 500 | 0 |
| 38 | Hydrofluoric acid (20-70%) | 18446 | 5081.16 |
| 39 | Anhydrous hydrochloric acid | 900 | 191.42 |
| 40 | Chlorodifluoromethane (R22) | 12000 | 4253.56 |
| 41 | Calcium chloride | 120000 | 105135.73 |
| **Total** | | **422366.00** | **337096.32** |

Having completed the environmental audit based on personal monitoring, and audit report, prepared as per the direction of the Hon'ble High Courte in Environmental Audit Scheme, it is certified that the Environmental Management System (EMS) provided by this industry for the products manufactured and capacity as stated above is adequate and efficacious to achieve the quality of effluents (Air + Waste Water + Solid Waste) as specified in consent / Notification by GPCB, Gandhinagar for the following quantity of waste generation:

**Water:**

| Particulars | Actual | Consented | Status |
|---|---|---|---|
| **Water Consumption** | **9292 KL/Day** | **20984 KL/Day** | **Complied** |
| **Industrial effluent** | **1553 KL/Day** | **10654 KL/Day** | **Complied** |
| **Sewage generated** | **221 KL/Day** | **340 KL/Day** | **Complied** |

**Air:**

| | |
|---|---|
| **Air Emission (Flue Gas Stacks as well as Process Stacks)** | **Adequate and efficacious as per annexure 16 & 17** |

**Hazardous Waste :**

| Sr. No | Waste | Consented Quantity / YEAR | Actual Quantity / YEAR | Status |
|---|---|---|---|---|
| **Adequate and efficacious as per annexure 19 & 20** | | | | |



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The certificate is valid for the audit period only. However it is subjected to automatic cancellation in case of any change in product profile/capacity, quality and quantity of effluent emission (Air + Waste Water + Solid Waste) and efficiency of EMS equipment.

This Certificate forms part of environmental audit report.

(Dr. Savan Tank)

Date: 25.06.2024

Place: Ahmedabad

Name & Address of the Auditor:

**Swarrnim Institute of Technology**

Swarrnim Startup and Innovation University, Gujarat,380006

**Signature of Authorized Person:**

| (Dr. Savan Tank) | (Dr. Parwathi Pillai) | (Mr. Brinda Govani) | (Ms. Apeksha Brahmbhatt) |
|---|---|---|---|
| Co-ordinator | Chemical Engineer | Env. Engineer | Microbiologist |

Swarrnim Startup & Innovation University Gandhinagar



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# ANNEXURE – 1

## LIST OF BOARD OF DIRECTORS

**LIST OF DIRECTORS – SRF LIMITED wef 01.04.2024**

| S. No. | Name of the Director | Designation | DIN | PAN | Address |
|---|---|---|---|---|---|
| 1. | Mr. Ashish Bharat Ram | Chairman & Managing Director | 00671567 | AAHPR1497F | 2, Silver Oak Avenue Westend Green Farms Rajokari New Delhi 110038 |
| 2. | Mr. Kartik Bharat Ram | Joint Managing Director | 00008557 | AALPB6243M | 1, Silver Oak Avenue Westend Green Farms Rajokari New Delhi 110038 |
| 3. | Mr. Pramod Gopaldas Gujarathi | Director (Safety & Environment) & Occupier | 00418958 | ACMPG6999G | 26, "Yash Bunglow", Dharmsi Park Opp. G.I.D.C Guest house, Post –GIDC Vapi – 396 195 (Gujarat) |
| 4. | Ms. Bharti Gupta Ramola | Independent Director | 00356188 | AAEPR1353F | E-2244 , Palam Vihar Gurugram-122017 (Haryana) |
| 5. | Mr. Puneet Yadu Dalmia | Independent Director | 00022633 | AGRPD5590K | 18, Golf Link New Delhi 110003 |
| 6. | Mr. Yash Gupta | Independent Director | 00299621 | AAHPG6961D | 46A, Friends Colony, New Delhi – 110065 |
| 7. | Mr. Raj Kumar Jain | Independent Director | 01741527 | AACPJ3471E | AR 511b, The Aralias, DLF Golf Course Road, DLF Phase 5, Gurgaon 122009 |
| 8. | Mr. Vellayan Subbiah | Non-Executive Non - Independent Director | 01138759 | AADPV8920B | 7 Valliammai Achi Road, Kotturpuram, Chennai 600085 (Tamilnadu) |
| 9. | Mr. Vineet Agarwal | Independent Director | 00380300 | AAEPA8985E | 19, Olof Palme Marg, Vasant Vihar, New Delhi - 110057 |
| 10. | Ms. Ira Gupta | Independent Director | 07517101 | AAIPT1336J | H.No. C- 31, Pushpanjali Farms, Bijwasan, Delhi, 110061 |

**CERTIFIED TO BE TRUE COPY**
**FOR SRF LIMITED**

**RAJAT LAKHANPAL**
**SR. VP (CORPORATE COMPLIANCE) & COMPANY SECRETARY**
**MEMBERSHIP NO. ACS-12725**
**ADDRESS- BLOCK -C, SECTOR - 45, GURUGRAM- 122003)**

**SRF LIMITED**
Block - C, Sector - 45
Gurugram - 122 003
Haryana, India
Tel: +91-124-4354400
Fax: +91-124-4354500
Email: info@srf.com
Website: www.srf.com

**Regd. Office:**
Unit No. 236 and 237, 2nd Floor,
DLF Galleria, Mayur Place
Noida Link Road
Mayur Vihar Phase I Extension
Delhi -110 091

CIN : L18101DL1970PLC005197



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# ANNEXURE – 2

## CONSOLIDATED CONSENT & AUTHORIZATION

GPCB

**GUJARAT POLLUTION CONTROL BOARD**
PARYAVARAN BHAVAN
Sector-10-A, **Gandhinagar**-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

By R.P.A.D.

**CONSOLIDATED CONSENT AND AUTHORIZATION (CC & A)**
**CCA NO: AWH- 119079**

**NO: GPCB/BRCH-B/CCA- 38(19)/ID-24521/** 678954 **DT:** 26/07/2022

In exercise of the power conferred under Section-25 of the Water (Prevention and Control of Pollution) Act-1974, under Section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986.

And whereas Board has received consolidated application dated **22/12/2021** and inward no. **208267** for the consolidated consent and authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts, Consolidated Consent & Authorization is hereby granted as under.

**To,**
**M/s. SRF Ltd.**
**Plot No: - D-II/I, GIDC, Dahej,**
**Tal: Vagra, Dist: Bharuch.**

1. **Consent Order No. : AWH-119079 date of Issue 02/06/2022.**
2. The consent under Water Act-1974 for conveying the industrial effluent discharge to GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system up to the sea for final Disposal at NIO designated point, The consent under Air Act-1981 & Authorization under Environment (Protection) Act, 1986 shall be **valid up to 10/01/2027** to operate industrial plant to manufacture following products:

| Sr. No. | Name of Product | Total Proposed Capacity (MT/Annum) |
|---|---|---|
| 1 | Trifluoro Acetic Acid | 2000 |
| 2 | **Speciality products:** | |
| i | Tetrafluorobenzyl Alcohol | 9900 |
| ii | Ethyldifluoroacetate | |
| iii | Ethyltrifluroacetate | |
| iv | Ethyltrifluoroacetoacetate | |
| v | Amino crotonate | |
| vi | Trifluoroacetic anhydride | |
| vii | Pentafluorobenzoic Acid | |
| viii | Pyrazole Acid | |
| ix | Chloro trichloro Methyl – Cyclopentene | |
| x | 2-methyl-4- (1,1,1,2,3,3,3-heptafluoro-2-propyl aniline | |
| xi | Fluoromethyl ester | |
| xii | Diphenylphenol | |
| xiii | Tetrafluoropropene -1234 yf | |
| xiv | Isobutyl Acetophenon | |
| xv | 2-Bromo-5-fluorobenzotrifluoride | |

Page 1 of 19

*Clean Gujarat Green Gujarat*
ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation



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| Sr. No. | Name of Product | Total Proposed Capacity (MT/Annum) |
|---|---|---|
| xvi | 2,2-Difluroethylamine | |
| xvii | 2,3-Dichloro-5-trifluoromethyl-pyridine | |
| xviii | N[1-(6-Chloro-3-pyridinyl)methyl)-2(1H)-pyridinylidene]-2,2,2, trifluoroacetamide | |
| xix | (N-(4-fluorophenyl)-2-hydroxy-N-isopropyl-acetamide | 3000 |
| 3 | 1,1,2,2-Tetrafluoroethyl Methyl Ether | 500 |
| 4 | Hexafluoropropylene | 300 |
| 5 | Ethyl Difluoroacetoacetate | 100 |
| 6 | Difluoromethanesulphonlychloride | 1000 |
| 7 | 3-Trifluoromethylacetophenone | 1700 |
| 8 | Trifluoromethylbenzamide | 1000 |
| 9 | TrifluoroMethyl-2-EthoxyVinyl Ketone | 1500 |
| 10 | 2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester | 150 |
| 11 | Pentafluorophenol | 3500 |
| 12 | Monomethylhydrazine | 500 |
| 13 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) | 200 |
| 14 | Bromopentafluorobenzene | 100 |
| 15 | Methyl Hydroxy Pyrazole | 500 |
| 16 | 5-Bromo-2-2-difluoro-1-3-benzodioxide | 20 |
| 17 | Difluorobenzodioxole methyl ester | 500 |
| 18 | 2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)benzenamine (DHA) | 50 |
| 19 | 2,4,5-Trifluorophenyl acetic acid | 50 |
| 20 | Methyl-2- Fluoroacrylate | 50 |
| 21 | Ethyl-Trifluoropyruvate | 600 |
| 22 | 5-Chloro-2,3-difluoropyridine | 3500 |
| 23 | 3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylic Acid | 600 |
| 24 | 4-methoxy cyclohexanone (4 MCH) | 600 |
| 25 | 2 Amino 3 Chloro 5 trifluro methyl pyridine | 3500 |
| 26 | Hydrazine Hydrate | 600 |
| 27 | 2-methylsulfonyl-5-(trifluoromethyl)-1,3,4-thiadiazole | 500 |
| 28 | 1,3 Benzodioxole | |
| 29 | **Chlorinated Compounds:** | |
| i | Trichloroethylene | 1,50,000 |
| ii | Perchloroethylene | |
| iii | Methyl Chloride | |
| iv | Methylene dichloride | |
| v | Chloroform | |
| vi | Carbon tetrachloride | 40000 |
| 30 | Anhydrous Hydrofluoric acid | 500 |
| 31 | Chlorotrifluoroethane (HCFC 133a) | |

Page 2 of 19



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GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar-382 010
Phone : (079) 23226295
Fax : (079) 23232156
Website : www.gpcb.gov.in

| Sr. No. | Name of Product | Total Proposed Capacity (MT/Annum) |
|---|---|---|
| 32 | **HFC refrigerants** | |
| i | 1,1,1,2 Tetrafluroethane (HFC 134a) | 40000 |
| ii | Pentafluoroethane (HFC 125) | |
| iii | Difluoromethane (HFC - 32 ) | |
| iv | 1,1 difluoroethane (HFC-152a) | |
| v | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a) | |
| vi | Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404a) | |
| vii | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R407c) | |
| viii | Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a) | |
| 33 | R600a (Butane) | 1000 |
| 34 | Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22) | 500 |
| 35 | Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME) | 500 |
| 36 | **R&D Products:** | |
| i | Organo Heterocyclic Compounds | 2000 |
| ii | Aryl/Alkyl/Alicyclic Compounds | |
| iii | Elemental Fluorine/Bromine /Iodine and their Products/Derivatives | |
| iv | Alkali Metal / Boron / Phosphorous / Sulphur based Product / Derivatives | |
| 37 | Hydrofluoric acid (20-70%) | 18,446 |
| 38 | Anhydrous Hydrochloric acid | 900 |
| 39 | Chlorodifluoromethane (R22) | 12,000 |
| 40 | Calcium Chloride | 1,20,000 |

| Sr No. | Captive Power Plant | Proposed Capacity |
|---|---|---|
| 1 | Captive Power Plant | 25 MW |

**Specific conditions:**

a) Unit shall comply with all provision of Ozone Depleting substance Regulation and control Rules, 2000 and its amendment from time to time

b) Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter.

c) Unit shall comply with all the conditions stipulated by SEIAA in the order of Environment Clearance issued vide letter no. SEIAA/GUI/EC/5(f)/1538/2020 dated: 15/12/2020.



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d) Unit shall sell out their hazardous waste to authorized end users who is having authorization with valid CCA and rule 9 permission to receive this waste. Unit shall make MoU with such authorized endusers and submit MoU.
e) All the efforts shall be made to send hazardous waste to cement industry for Co-processing first & there after it shall be disposed through other option.
f) Unit shall follow spent solvent management guideline framed by board and shall make MoU with outside distillation units, if any. Also submit the prescribed forms as per guideline.
g) Unit shall strictly follow the Solid Fuel guideline framed by Board and shall install APCM as per guideline.
h) Unit shall follow coal handling guideline framed by Board and provide close ash handling facility.
i) Unit shall strictly follow the Fly Ash Notification for disposal of generated ash.
j) Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH.

**3.0 CONDITION UNDER THE WATER ACT:**

3.1 The quantity of total water consumption shall not exceed 19413 KL/Day as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.

a. Domestic: 429 KLD
b. Industrial: 18,769 KLD
c. Gardening: 215 KLD

**Total: 19,413 KLD**

3.2 The quantity of total waste water generation shall not exceed 9975 KL/Day as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.

Domestic: 340 KLD
Industrial: 9,635 KLD
**Total: 9,975 KLD**

3.3 Mode of disposal of wastewater:

a) The quantity of industrial effluent from manufacturing process and other ancillary industrial operations shall not exceed 9635 KLD and the quantity of domestic wastewater (sewage) shall not exceed 340 KLD.
b) 4024 KLD of process steam condensate shall be collected in separate collection tank and reused in cooling tower/process.
c) 3884 KLD of industrial effluent from softener/ DM Plant Reject + Boiler Blow down + Cooling tower Blow Off (including Captive Power Plant) shall be sent to separate ETP consists of Primary Treatment +UF +RO. After treatment, 3301 KLD the treated effluent shall be reused in cooling tower/process and 583 KLD RO reject after confirming the GPCB discharge norms shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea.
d) 1727 KLD of industrial effluent ( process Effluent + Washing) shall be sent to ETP consisting of primary, secondary and tertiary Treatment units and Multi Effective Evaporator plant (MEE) followed by Agitated Thin Film Dryer (ATFD).





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e) @ Total 2310 KLD treated (1727 KLD treated industrial effluent + 583 KLD RO reject) shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea for final disposal at NIO designated points.

f) @ 340 KLD of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season, it shall be reuse in cooling tower/process shall meet following standards.

| Parameters | GPCB Norms |
|---|---|
| pH | 6.5 to 9 |
| TSS | < 50 mg/l |
| Fecal Coliform ( Most Probable Number per 100 milliliter , MPN/100ml) | <1000 MPN/100ml |
| BOD (5 days 20 degree C) | <20 mg/l |

3.4 The quality of treated effluent shall conform to the following standards prior to disposal GIDC Sewer Line - Dahej Vilayat Pipeline/Common Disposal System up to the sea for final disposal at NIO designated point.

| Sr. No. | PARAMETERS | PERMISSIBLE LIMIT |
|---|---|---|
| 1 | pH | 6 to 9 |
| 2 | Temperature | Shall not exceed more than 5 °C above receiving water temperature |
| 3 | Total Suspended Solids | 100 mg/l |
| 4 | Oil and Grease | 10 mg/l |
| 5 | Phenolic Compounds | 5 mg/l |
| 6 | Cyanide (as CN) | 0.2 mg/l |
| 7 | Fluorides (as F) | 15 mg/l |
| 8 | Sulphides (as P) | 5.0 mg/l |
| 9 | Total Residual Chlorine | 1.0 mg/l |
| 10 | Ammonical Nitrogen (as N) | 50 mg/l |
| 11 | Total Kjeldahl Nitrogen (TKN) | 50 mg/l |
| 12 | Nitrate Nitrogen | 50 mg/l |
| 13 | Biochemical Oxygen demand [3 day at 27°C] | 100 mg/l |
| 14 | Chemical Oxygen Demand | 250 mg/l |
| 15 | Arsenic (as AS) | 0.2 mg/l |
| 16 | Mercury (as Hg) | 0.01 mg/l |
| 17 | Lead (as Pb) | 0.1 mg/l |
| 18 | Cadmium (as Cd) | 0.05 mg/l |
| 19 | Trivelent Chromium | 2.0 mg/l |
| 20 | Hexavalent Chromium (as Cr± 6) | 0.1 mg/l |
| 21 | Copper (as Cu) | 3.0 mg/l |
| 22 | Zinc (as Zn) | 15 mg/l |
| 23 | Selenium (as Se) | 0.05 mg/l |
| 24 | Nickel (as Ni) | 3.0 mg/l |
| 25 | Manganese (as Mn) | 2 mg/l |
| 26 | Iron (as Fe) | 3 mg/l |
| 27 | Vanadium (as V) | 0.2 mg/l |
| 28 | Bio assay test | 90% survival of fish after 96 |



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| | | |
|---|---|---|
| | | hours in 100% effluent |

3.5 The effluent conforming to the above standards shall be discharged into GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system upto the sea for final disposal at NIO designated point.

3.6 Unit shall be required to make storage facilities to store the effluent for at least 48 hours by providing acid proof brick lined impervious tanks/HDPE tanks.

3.7 Unit shall implement & follow communication plan so that respected work can be done in minimum response time in case of emergencies.

3.8 Unit shall provide online monitoring system for pH, TOC and other parameters with recorder & magnetic flow meters for flow measurement of treated wastewater, if applicable as per CPCB norms.

3.9 Unit shall have only one authorized outlet over the ground with full access from outside the premises.

3.10 In case of shut-down of plant for more than three (3) days for any reason, member unit shall intimate to GIDC/ Pipeline Project authority & GPCB well in advance for the better operation & management of pipeline.

3.11 Unit shall make fixed arrangement for discharge of the effluent from their Final collection tanks to the underground drainage network of GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system. Unit shall not keep any by-pass line or system or loose or flexible pipe line for discharge of the effluent into underground drainage network of Pipeline.

3.12 Magnetic flow meters shall be installed at the inlet & outlet of effluent collection tanks/ETP to measure the quantity of effluent discharged into the underground drainage network of GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system.

3.13 Unit shall affix of water meters as per Section 4 (1) of the water (Prevention and Control of Pollution) Cess Act – 1977 for the purpose of measuring and recording the quantity of water consumed at such places as may be required, within 15 days and it shall be presumed that the quantity indicated by the meter has been consumed by the unit until the contrary is proved.

3.14 Unit shall provide adequate / safe effluent sampling facility for the effluent being stored in final collection / discharge tank of ETP or being discharged into GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system upto the sea for final disposal at NIO designated point.

3.15 Unit shall put up at the entrance a board displaying the name of unit, particulars of the products/ process, the name of proprietor/partners /directors of the unit, GIDC Pipeline Project membership number & date of joining of GIDC Pipeline Project membership, the electricity consumer number as on the record of DGVCL.

3.16 Unit shall have to display on-line data outside the main factory gate with regard to and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises, if applicable as per CPCB norms.

3.17 Unit shall either stop or curtail its production activities if the effluent is not conforming to the standards of GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system specified by GPCB.





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3.18 The authorized representative of GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system project shall have right of entry at any time for the purpose of inspection and monitoring the effluent collection facilities/ETP (if required) of Unit.

3.19 Unit shall have to keep accurate records of quality & quantity of effluent discharged to GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system on day-to-day basis. Separate logbook shall be maintained for recording the data & shall be made available for inspection as & when asked.

3.20 Unit shall keep accurate records of quantity of production of each product, quantity of water consumption, quantity of effluent generated and consumption of electricity on day to day basis and required to submit the complied record of each month to GPCB on or before fifth day of the succeeding month.

3.21 In case of incinerators or MEE, the flow measuring devices for mother liquor/ toxic effluent/ Non-biodegradable effluent, light diesel oil, Furnace oil, etc. i.e. fuel used for combustion, air used for combustion shall be separately provided. Incinerator temperature recording devices as well as gaseous flow measuring devices for scrubber shall also be provided. These data of temperature & flow should be recorded every day & submitted to GPCB on monthly basis.

3.22 Disposal system for storm water shall be provided separately. In no circumstances storm water shall be mixed with the industrial effluent.

3.23 Leachate from the hazardous solid waste, if any shall also be connected into a collection tank through leachate collection facilities and shall be treated along with industrial effluent and final treated effluent shall be discharged to the GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system.

3.24 If the GIDC effluent collection system Line- Dahej Vilayat Pipeline/ Common Disposal system Project authority terminates the membership of Pipeline Project, the member unit shall have to close down the manufacturing activities/industrial operation of the process plant immediately until the membership is resumed.

3.25 The Environmental Management Unit/Cell shall be setup to ensure implementation on and monitoring of environment safeguards and other conditions stipulated by statutory authorities. The Environmental Management Cell / Unit shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing environmental issued. These Cells also coordinate the exercise of environmental audit and preparation of environmental statements.

3.26 The Environmental audit shall be carryout yearly, if applicable. The environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th September every year.

3.27 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of **5** meters width is developed.

3.28 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consents form/ order should immediately be intimated to this Board.

3.29 The Board reserves the right to review and/or revoke the consent and / or make modifications in the conditions which it seems fit in accordance with provisions of Water Act-1974.



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4. **CONDITIONS UNDER THE AIR ACT:**

4.1 The following shall be used as fuel:

| Sr. No. | Name of fuel | Total Quantity per day |
|---|---|---|
| 1 | Coal | 600 MT/day |
| 2 | HSD | 215 KLD |
| 3 | Natural Gas [Alternative fuel instead of coal] | 45000 Nm3/day |
| 4 | Furnace Oil | 142.5 KLD |
| 5 | LSHS / LDO | 110 KLD |

4.1.1 The condition No. 4.2 for Flue gas stacks under Air Act of the CCA order No: AWH-116118, issued vide letter no. GPCB/ BRCH-B/ CCA-38(17)/ ID-15121/624543, dated 03/03/2022 is amended and shall now be read as under.

| Stack | Stack Attached To | Stack Height in Meter | Air Pollution Control Measures | Parameter | Permissible Limit |
|---|---|---|---|---|---|
| 1 | Boiler 35 TPH | 94 (Common Stack) | Electrostatic Precipitator + Scrubber | PM | 50 mg/NM3 |
| 2 | Boiler 35 TPH | | | SO2 | 600 mg/NM3 |
| 3 | Boiler 60 TPH | | | NOx | 450 mg/NM3 |
| | | | | Hg | 0.03 mg/NM3 |
| 4 | DG Set 500 KW | 11 | - | | |
| 5 | DG Set 500 KW | 11 | - | | |
| 6 | DG Set 840 KW | 30 | - | | |
| 7 | DG Set 840 KW | 30 | - | | |
| 8 | TCE/PCE Plant Thermic Fluid /Fire Heaters No. 1 | 50 | Efficient Burner | PM<br>SO2<br>NOx | 150 mg/NM3<br>100 ppm<br>50 ppm |
| 9 | TCE/PCE Plant Thermic Fluid /Fire Heaters No. 2 | 50 | Efficient Burner | | |
| 10 | HFC 134a Plant Thermic Fluid /Fire Heaters | 50 | Efficient Burner | | |
| 11 | AHF Plant Heater No. 1 (Thermic Fluid/ Fire Heaters) | 46 | Efficient Burner | | |
| 12 | AHF Plant Drying System No. 1 | 35 | Cyclone Separator / Bag Filter | | |
| 13 | AHF Plant Heaters No. 2 (Thermic Fluid /Fire Heaters) | 46 | Efficient Burner | | |
| 14 | AHF Plant | 35 | Cyclone | | |





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| | | | | | |
|---|---|---|---|---|---|
| | Drying System No. 2 (Thermic Fluid /Fire Heaters) | | Separator / Bag Filter | | |
| 15 | Difluoromethan (HFC 32) Plant Hot Oil Furnace (Thermic Fluid /Fire Heaters) | 55 | Efficient Burner | | |
| 16 | Boiler 30 TPH | 63 | - | | |
| 17 | Boiler 30 TPH | 63 | - | | |
| 18 | DG Set 4200kVA | 30 | - | | |
| 19 | DG Set 4200 kVA | 30 | - | | |
| 20 | DG Set 4200 kVA | 30 | - | | |
| 21 | Boiler 17 TPH | 53 | - | | |
| 22 | Dust Collector | 11 | Bag filter | Particulate Matter | 150 mg/Nm3 |

4.2 The Process emission through various stacks/ vent of reactors, process, vessel shall conform to the following standards:

| Stack | Stack Attach To | Stack height in Meter | Air Pollution Control System | AIR EMISSION | |
|---|---|---|---|---|---|
| | | | | POLLUTANT | CONCENTRATION |
| **HF Plant Stack** | | | | | |
| 1 | HF Plant Central Absorption System | 30 | Continuous water Circulation | HF | 6 mg/Nm$^3$ |
| **TCE/PCE Plant Stack** | | | | | |
| 2 | TCE/PCE Plant (Central Absorption System) | 20 | Continuous Alkali Circulation | Cl2 | 9mg/NM3 |
| 3 | TCE/PCE Plant (CentralAbsorption System) | 30 | Continuous Water Circulation | HCl | 20mg/Nm3 |
| **HFC Plant Stack** | | | | | |
| 4 | R134a Plant (Central Absorption System) | 30 | Continuous Water Circulation | HCl<br>HF | 20mg/NM3<br>6mg/NM3 |
| 5 | Reactor / Vessel (10 Nos.) Central Absorption System | 30 | Continuous Water Circulation | HF<br>HCl | 6mg/NM3<br>20mg/NM3 |
| 6 | Reactor / Vessel (10 Nos.) Central | 30 | Continuous Water | HCl | 20mg/NM3 |



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| Stack | Stack Attach To | Stack height in Meter | Air Pollution Control System | AIR EMISSION | |
|---|---|---|---|---|---|
| | | | | POLLUTANT | CONCENTRATION |
| | Absorption System | | Circulation | | |
| 7 | Reactor / Vessel (04 Nos.) Central Absorption System | 20 | Continuous Alkali Circulation | Cl2 | 9 mg/NM3 |
| 8 | Reactor / Vessel (02 Nos.) Central Absorption System | 20 | Continuous Alkali Circulation | Br2 | 2mg/NM3 |
| 9 | Trifluoro Acetic Acid Central Absorption System | 30 | Continuous Water + Alkali Circulation | HF<br>HCl | 6 mg/NM3<br>20 mg/NM3 |
| 10 | Ethyldifluoroacetate Central Absorption System | 30 | Continuous Water + Alkali Circulation | HF<br>HCl | 6 mg/NM3<br>20 mg/NM3 |
| 11 | Ethyltrifluroacetate Central Absorption System | 30 | Continuous Water + Alkali Circulation | HF | 6 mg/NM3 |
| 12 | Ethyltrifluoroacetoacetate Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl | 20 mg/NM3 |
| 13 | Pentafluorobenzoic Acid Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>Cl2 | 20 mg/NM3<br>9 mg/NM3 |
| 14 | Pyrazole Acid Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl | 20 mg/NM3 |
| 15 | 2-methyl-4-(1,1,1,2,3,3,3-heptafluoro-2-propyl aniline Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>Br2 | 20 mg/NM3<br>2 mg/NM3 |
| 16 | Tetrafluoropropene - 1234yf Central | 30 | Continuous Water + Alkali Circulation | HF<br>HCl | 6 mg/NM3<br>20 mg/NM3 |

Page 10 of 19



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| Stack | Stack Attach To | Stack height in Meter | Air Pollution Control System | AIR EMISSION | |
|---|---|---|---|---|---|
| | | | | POLLUTANT | CONCENTRATION |
| | Absorption System | | | | |
| 17 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl | 20 mg/NM3 |
| 18 | Hexafluoropropylene Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl | 20 mg/NM3 |
| 19 | Difluoromethane sulphonlychloride Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>Cl2 | 20 mg/NM3<br>9 mg/NM3 |
| 20 | Trifluoromethylbenzamide Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>Cl2 | 20 mg/NM3<br>9 mg/NM3 |
| 21 | Bromopentafluorobenzene Central Absorption System | 30 | Continuous Water + Alkali Circulation | Br2 | 2 mg/NM3 |
| 22 | 5-Bromo-2-2-difluoro-1-3-benzodioxide Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>Br2<br>HF | 20 mg/NM3<br>2 mg/NM3<br>6 mg/NM3 |
| 23 | Difluorobenzodioxole methyl ester Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>Br2 | 20 mg/NM3<br>2 mg/NM3 |
| 24 | Methyl-2-Fluoroacrylate Central Absorption System | 30 | Continuous Water + Alkali Circulation | HF | 6 mg/NM3 |
| 25 | CMS plant (Methyl Chloride ,Methylene | 30 | Continuous Water + Alkali Circulation | HCl<br>Cl2 | 20mg/NM3<br>9 mg/NM3 |



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| Stack | Stack Attach To | Stack height in Meter | Air Pollution Control System | AIR EMISSION | |
|---|---|---|---|---|---|
| | | | | POLLUTANT | CONCENTRATION |
| | dichloride, Chloroform, Carbon tetrachloride) Central Absorption System | | | | |
| 26 | Chlorotrifluoroethane (HCFC 133a) Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>HF | 20 mg/NM3<br>6 mg/NM3 |
| 27 | Pentafluoroethane (HFC 125) Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>HF | 20 mg/NM3<br>6 mg/NM3 |
| 28 | Difluoromethane (HFC - 32) Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl<br>HF | 20 mg/NM3<br>6 mg/NM3 |
| 29 | HCl Storage Tank Farm | 30 | Continuous Water + Alkali Circulation | HCl | 20 mg/NM3 |
| 30 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) Central Absorption System | 30 | Continuous Water + Alkali Circulation | HCl | 20 mg/NM3 |
| 31 | Flare Stack attached to Topramezone Plant | 30 | -- | PM<br>SO2<br>NOx | 150 mg/Nm$^3$<br>100 ppm<br>50 ppm |
| 32 | Chlorodifluoromethane (R22) Plant Central Absorption | 30 | Continuous water + Alkaline Circulation | HF<br>HCl | 6mg/NM3<br>20 mg/NM3 |

Page 12 of 19



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| Stack | Stack Attach To | Stack height in Meter | Air Pollution Control System | AIR EMISSION | |
|---|---|---|---|---|---|
| | | | | POLLUTANT | CONCENTRATION |
| | System- Common stack with R134a plant (Central Absorption System) | | | | |
| 33 | HFC134a Acid tank farm area scrubber vent | 30 | Continuous water Circulation | HCl | 20 mg/NM3 |
| 34 | Calcium Chloride Plant Scrubber | 30 | Continuous Water + Sodium Carbonate Solutions | CO2<br>HCl | --<br>20 mg/NM3 |
| 35 | Methyl Hydroxy Pyrazole Central Absorption System | 30 | Continuous water Circulation | HCl | 20 mg/NM3 |
| 36 | TCE/PCE Acid tank farm area scrubber vent | 20 | Continuous water Circulation | HCl | 20 mg/NM3 |
| 37 | DHF Scrubber | 30 | Continuous water Circulation | HF | 6 mg/Nm$^3$ |

4.3 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

| Sr. No. | Parameters | Permissible Limit (microgram /M$^3$) | |
|---|---|---|---|
| | | Annual | 24 Hours Average |
| 1. | Particulate Matter ($PM_{10}$) | 60 | 100 |
| 2. | Particulate Matter ($PM_{2.5}$) | 40 | 60 |
| 3. | Oxides of Sulphur ($SO_x$) | 50 | 80 |
| 4. | Oxides of Nitrogen ($NO_x$) | 40 | 80 |

- **Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.**
- **24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.**

4.4 Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified as above.

4.5 The consent to operate the industrial plant shall lapse if at any time the parameters of the gaseous emission are not within the tolerance limits specified as above.

4.6 Unit shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The



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chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

4.7 Unit shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(a) during day time and 70 dB (A) during night time. Daytime is reckoned in between 6a.m. and10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

4.8 All efforts shall be made to control VOC emissions and odor problem, if any.

**5 GENERAL CONDITIONS: -**

5.1 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consents form/ order should immediately be intimated to this Board.

5.2 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5 meters width is developed.

5.3 Unit shall put up at the entrance a board displaying the name of unit, particulars of the products/ process and the name of proprietor/partners /directors of the unit and the electricity consumer number as on the record of DGVCL.

**6.0 CONDITIONS UNDER HAZARDOUS & OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016**

6.1 Number of authorization: **AWH- 119079 date of Issue 02/06/2022.**

6.2 **M/s. SRF Ltd.** is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at **PLOT NO: D-II/1, GIDC ESTATE Dahej, Tal: Vagra, Dist: Bharuch.**

| Sr. No | Type of Waste | Category | Quantity (MT/year) | Facility |
|---|---|---|---|---|
| 1 | Chemical sludge from wastewater treatment | 35.3 | 3265 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing facility. |
| 2 | Spent Oil | 5.1 | 600 | Collection, Storage, Reuse, Transportation and Disposal by sending to authorized recycler/ refiners. |
| 3 | Discarded containers / barrels / liners used for hazardous wastes/chemicals | 33.1 | 5428 | Collection, Storage, Decontamination/Detoxification, Reuse, Transportation and Disposal by sending to authorized Decontamination facility. |
| 4 | Spent Catalyst | 28.2 | 2763 | Collection, Storage, Transportation and Disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |





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| 5 | Spent Carbon | 28.3 | 468 | Collection, Storage, Transportation, and Disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 6 | Off- Specification Product | 28.4 | 600 | Collection, Storage, Transportation, and Disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 7 | Process Residue & Waste | 28.1 | 15125 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. |
| 8 | Spent Organic Solvent | 20.2 | 47,586 | Collection, Storage, Transportation and Disposal at approved CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission & valid CCA after making MOU. |
| 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | 18,553 | |
| 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | 37,504 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. |
| 11 | CuCl Cake | 8.2 | 52 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing or pre-processing. |
| 12 | Ammonium Salt | A-10 | 1717 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing. |
| 13 | Potassium Salt | B-36 | 2572 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing. |
| 14 | Sodium Salt | B-36 | 4402 | Collection, Storage, Transportation and Disposal by sending to authorized Actual |



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| | | | | end-user having rule-9 permission & valid CCA after making MOU (445 TPA) and rest (2127 TPA) shall be Disposed at approved TSDF. |
| 15 | Zinc Compound | 6.1 | 44 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing. |
| 16 | Hydrofluoricsilic acid (15–40%) | Sch II - Class C - C2 | 4000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU. |
| 17 | Sulphuric acid (70-95%) | B-15 | 90382 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or co-processing. |
| 18 | Hydrochloric Acid (10 - 33%) | B-15 | 411553 | Collection, Storage, Transportation, and disposal by sending to Actual end-user having rule-9 permission & valid CCA after making MOU or converted in to the Calcium Chloride and sold to actual users/ disposed off in deep sea. |
| 19 | Sodium Hypochlorite | B-7 | 13875 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU. |
| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | 2593 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU |
| 21 | Calcium Fluoride | B-10 | 5844 | Collection, Storage, Transportation and Disposal by sending to authorized Actual |

Page 16 of 19



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| | | | | |
|---|---|---|---|---|
| | | | | end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 22 | Calcium Chloride | B-10 | 165 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 23 | Sodium methoxide Solution | C7 | 120 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 24 | Phosphorus trichloride | B-35 | 934 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 25 | Gypsum (CaSO4) | 38.1 | 162400 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or co-processing or pre-processing facility. |
| 26 | Aluminium trifluoride | 36.1 | 1000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing. |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | 1500 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 |



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| | | | | permission & valid CCA after making MOU. |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | 2802 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing. |
| 29 | Fluoroform (R23) | 28.1 | 240 | Collection, Storage, In-house treatment through thermal oxidizer/transportation and disposal at approved CHWIF/transportation treatment through thermal oxidizer at SRF Limited, Bhiwadi/pre-processing/co-processing / CBMWTF having rotary kiln incinerator / authorized Actual end-user having rule-9 permission & Valid CCA after making MoU. |
| 30 | Inorganic Sludge Generation from Calcium Chloride Plant | 35.3 | 2034 | Collection, Storage, Transportation and Disposal at approved TSDF |
| 31 | Caustic lye | Sch II - Class C - C2 | 36 | Collection, Storage, Transportation and Disposal by sending to authorized Actual end-user having rule-9 permission & valid CCA after making MOU. |

6.3 The authorization is granted to operate a facility as above.

6.4 The authorization shall be in force for a period up to **10/01/2027**.

6.5 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

7. **TERMS AND CONDITIONS OF AUTHORISATION:**

7.1 The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.

7.2 The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the Gujarat Pollution Control Board.

7.3 The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.

7.4 Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.

Page 18 of 19



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7.5 The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;

7.6 The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"

7.7 It is the duty of the authorised person to take prior permission of the Gujarat Pollution Control Board to close down the facility.

7.8 The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.

7.9 The record of consumption and fate of the imported hazardous and other wastes shall be maintained.

7.10 The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.

7.11 The importer or exporter shall bear the cost of import or export and mitigation of damages if, any.

7.12 An application for the renewal of an authorization shall be made as laid down under Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016.

7.13 Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.

7.14 Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

7.15 Unit shall have to display the relevant information with regard to hazardous waste as indicated in the Court's order in W.P. No. 657 of 1995 dated 14th October 2003.

7.16 Unit shall have to display on-line data outside the main factory gate with regard to and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises.

7.17 Unit shall have to manage used or spent oil; empty or discarded barrels / containers / liners contaminated with hazardous chemicals / wastes, process waste as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986 and shall apply Authorization for all applicable waste.

FOR AND ON BEHALF OF
GUJARAT POLLUTION CONTROL BOARD

(IRFAN BAGZI)
ENVIRONMENT ENGINEER



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By R.P.A.D.

**CONSOLIDATED CONSENT AND AUTHORIZATION (CC & A – Amendment)**
**CCA AMENDMENT NO: AWH – 123782**

**No: GPCB/BRCH-B/CCA- 38(21)/ID-24521/** **DT: /04/2023**

**To,**
**M/s. SRF Ltd.,**
**Plot No: D-II/I, GIDC, Dahej**
**Tal: Vagra, Dist: Bharuch.**

**SUB:** Amendment in Consolidated Consent & Authorization (CC&A) under various Environmental Acts/ Rules.
**REF:** (1) Your application No. 255854 dated 10/06/2022.
(2) CCA No. AWH-119039 dated: 26/07/2022.

This has reference to the CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 which stands amended as under:

**The Validity of this order shall be up to 10/01/2027.**

1. **Existing products and its quantity as per CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 shall remain unchanged. The capacity of Captive Power Plant (CPP) shall be increased from 25 MW to 45.1 MW.**

2. **SPECIFIC CONDITIONS:**
   a) **Unit shall maintain ZLD for wastewater generated from proposed CPP of capacity 20.1 MW.**
   b) **Unit shall comply MoEF & CC's notification dated 28/06/2018 and its subsequent amendment for Thermal Power Plant (TPP).**
   c) Unit shall comply with all the conditions stipulated by SEIAA in the order of Environment Clearance issued vide letter no. SEIAA/GUJ/EC/5(f)/1538/2020 dated: 15/12/2020.
   d) Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter.
   e) Unit shall follow coal handling guideline framed by Board and provide close ash handling facility.
   f) Unit shall strictly follow the Fly Ash Notification for disposal of generated ash.
   g) Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH.
   h) Unit shall comply GPCB office order dated 03/06/2021 regarding APCM for $SO_2$ emission control.
   i) Unit shall not send any hazardous waste to units which are only involved in phase conversion (physical changes). Unit shall ensure that hazardous waste receiving unit is complying CPCB letter dated 29/10/2020.

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**3. CONDITION UNDER THE WATER ACT:**

3.1 The condition no. 3.1 for Water consumption under the Water Act of CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 is amended and shall now be read as under:

| Sr. No. | Water Consumption | Quantity (KLD) | | |
|---|---|---|---|---|
| | | Existing | Proposed | Total |
| 1 | Domestic | 429 | 0 | 429 |
| 2 | Industrial | 18,769 | 1571 | 20,340 |
| 3 | Gardening | 215 | 0 | 215 |
| **Total** | | **19413** | **1571** | **20984** |

3.2 The condition no. 3.2 for Wastewater generation under the Water Act of CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 is amended and shall now be read as under:

| Sr. No. | Water Generation | Quantity (KLD) | | |
|---|---|---|---|---|
| | | Existing | Proposed | Total |
| 1 | Domestic | 340 | 0 | 340 |
| 2 | Industrial | 9635 | 679 | 10,314 |
| **Total** | | **9975** | **679** | **10,654** |

3.3 The condition no. 3.3 for mode of disposal of wastewater under the Water Act of CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 is amended and shall now be read as under:

a) 4024 KLD steam condensate of boilers shall be collected in separate collection tank and reused in cooling tower/process.

b) 4511 KLD of industrial wastewater from Softener/ DM Plant Reject + Boiler Blow Down + Cooling Tower Bleed Off (including of Captive Power Plant) shall be sent to separate ETP consists of Primary Treatment + UF+RO. After treatment, 3928 KLD treated wastewater shall be reused and 583 KLD RO reject after confirming discharge norms shall be sent to GIDC sewer line – Dahej Vilayat pipeline / common disposal system.

c) 1779 KLD of industrial wastewater (generated from Process & Scrubber + Washing + cooling of Thermal Oxidizer) shall be sent to ETP consists of Primary, Secondary and Tertiary Treatment units and Multi Effect Evaporated plant (MEE) followed by Agitated Thin Film Dryer. After treatment, treated effluent after confirming discharge norms shall be sent to GIDC sewer line – Dahej Vilayat pipeline / common disposal system.

d) Total 2362 KLD treated wastewater (1779 KLD treated wastewater + 583 KLD RO reject) shall be sent to GIDC sewer line – Dahej Vilayat pipeline / common disposal system up to the sea for final disposal at NIO designated point after conforming discharge norms as per previous CCA.

e) 340 KLD of sewage shall be treated separately in STP and treated sewage after conforming following standards shall be reused in development of greenbelt / plantation within premises. In monsoon season, it shall be reused in cooling tower/process.

| Parameters | Norms |
|---|---|
| pH | 6.5 to 9 |
| TSS | < 100 mg/l |
| Fecal Coliform ( Most Probable Number per 100 milliliter , MPN/100ml) | <1000 MPN/100ml |
| BOD (3 days 27 degree C) | <30 mg/l |

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f) Unit shall develop adequate greenbelt / plantation area within premises for utilization of treated domestic wastewater.

**4. CONDITIONS UNDER THE AIR ACT:**

4.1 The condition no. 4.1 for Fuel consumption under the Air Act of CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 is amended and shall now be read as under:

| Sr. No. | Name of fuel | Quantity | | |
|---|---|---|---|---|
| | | Existing | Proposed | Total |
| 1 | Coal | 600 MT/day | 1068 MT/day | 1668 MT/day |
| 2 | HSD | 215 KL/day | 1 KL/day | 216 KL/day |
| 3 | Natural Gas [Alternative fuel instead of coal] | 45000 Nm³/day | 203 Nm³/Day | 45203 Nm³/Day |
| 4 | Furnace Oil | 142.5 KL/day | -- | 142.5 KL/day |
| 5 | LSHS / LDO | 110 KL/day | -- | 110 KL/day |

4.2 The condition No. 4.1.1 for flue gas stacks under the Air Act of CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 is amended and shall now be read as under:

| Stack | Stack Attached To | Stack Height in Meter | Air Pollution Control Measures | Parameter | Permissible Limit |
|---|---|---|---|---|---|
| **Existing** | | | | | |
| **Same as per CCA order no: AWH-119039.** | | | | | |
| **Proposed** | | | | | |
| 23 | Boiler 175 TPH | 110 | Electrostatic Precipitator + Auto Lime Dosing Scrubber | PM<br>SO2<br>NOx<br>Hg | 30 mg/Nm³<br>100 mg/Nm³<br>100 mg/Nm³<br>0.03 mg/Nm³ |
| 24 | Thermal Oxidizer- 1 | 40 | Quencher + Water Absorber + Alkali scrubber | As mentioned below: | |

Treated flue gas emission discharge through stack of Thermal Oxidizer to atmosphere shall always be less than or equal to the following parameter specific emission standards:

| Parameters | Emission Standards | Sampling Duration |
|---|---|---|
| Particulate Matter | 50 mg/Nm³ | 30 Minutes or more (for sampling about 300 liters of emission) |
| HCl | 50 mg/Nm³ | 30 Minutes |
| $SO_2$ | 200 mg/Nm³ | 30 Minutes |
| CO | 100 mg/Nm³ | Daily average |
| Total Organic Carbon | 20 mg/Nm³ | 30 Minutes |
| Total dioxins and furans | 0.1 ng TEQ/Nm³ | 8 Hours |

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| Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + Cd + Th + Hg and their compounds | 1.5 mg/Nm³ | 2 Hours |

**Unit shall comply following conditions:**

A. **All monitored values shall be corrected to 11% oxygen on dry basis.**
B. **The $CO_2$ concentration in tail gas shall not be less than 7%.**
C. **In case, halogenated organic waste is less than 1% by weight in input waste, all the facilities in twin chamber Thermal Oxidizer shall be designed so as to achieve a minimum temperature of 850 ± 25°C in primary chamber and 950°C in secondary combustion chamber not less than two seconds.**
   **OR**
   **All the facilities in single chamber Thermal Oxidizer for gaseous hazardous waste shall be designed so as to achieve a minimum temperature of 950°C in the combustion chamber with a gas residence time not less than two seconds.**
D. **In case halogenated organic waste is more than 1% by weight in input waste, waste shall be incinerated only in twin chamber Thermal Oxidizer and all the facilities shall be designed to achieve a minimum temperature of 850 ± 25°C in primary chamber and 1100°C in secondary combustion chamber with a gas residence time in secondary combustion chamber not less than two seconds.**
E. **Scrubber meant for scrubbing emissions shall not be used as quencher.**
F. **Thermal Oxidizer shall be operated (i.e. combustion chambers) with such temperature, retention time and turbulence, as to achieve Total Organic Carbon (TOC) content in the ash and residue less than 3% and their loss on ignition is less than 5% of the dry weight. In case of non-conformity, ash and residue, as the case may be shall re-incinerated.**
G. **Thermal Oxidizer shall be designed and operated as per CPCB's directions/guidelines issued time to time.**

4.3 There shall be no change in process gas emission from proposed expansion.

4.4 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

| Sr. No. | Parameters | Permissible Limit (microgram /M³) | |
|---|---|---|---|
| | | Annual | 24 Hours Average |
| 1. | Particulate Matter ($PM_{10}$) | 60 | 100 |
| 2. | Particulate Matter ($PM_{2.5}$) | 40 | 60 |
| 3. | Oxides of Sulphur ($SO_x$) | 50 | 80 |
| 4. | Oxides of Nitrogen ($NO_x$) | 40 | 80 |

- **Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.**
- **24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.**

4.5 Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition as above.

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5. **CONDITIONS UNDER HAZARDOUS & OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016**

5.1 Unit shall comply with provisions of Hazardous & Other Wastes (Management & Trans boundary Movement) Rules-2016.

5.2 The condition No. 6.2 under authorization for Hazardous & other wastes of the CCA order No: AWH-119039, issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 is amended and shall now be read as under:

| Sr. No. | Name of Haz. Waste | Category Number | Quantity | | | Facility |
|---|---|---|---|---|---|---|
| | | | Exi. | Pro. | Total | |
| 1 | Chemical sludge from wastewater treatment | 35.3 | 3265 MTPA | 0 | 3265 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing facility |
| 2 | Spent Oil | 5.1 | 600 MTPA | 0 | 600 MTPA | Collection, Storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners |
| 3 | Discarded containers / barrels / liners used for hazardous wastes/chemicals | 33.1 | 5428 MTPA | 0 | 5428 MTPA | Collection, Storage, Decontamination/Detoxification, Reuse or Transportation and Disposal by sending to authorized Decontamination Facility |
| 4 | Spent Catalyst | 28.2 | 2763 MTPA | 0 | 2763 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing facility |
| 5 | Spent Carbon | 28.3 | 468 MTPA | 0 | 468 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing facility |
| 6 | Off-Specification Product | 28.4 | 600 MTPA | 0 | 600 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing facility |
| 7 | Process Residue & Waste | 36.1 | 15,125 MTPA | 0 | 15,125 MTPA | Collection, Storage, Transportation and Disposal at approved CHWIF or co-processing or pre-processing facility |

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| 8 | Spent Organic Solvent | 20.2 | 47,586 MTPA | 0 | 47,586 MTPA | Collection, Storage, Transportation and Disposal at approved CHWIF or co-processing or pre-processing facility or send to authorized actual end-user having rule-9 permission & valid CCA after making MOU |
| 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | 18,553 MTPA | 0 | 18,553 MTPA | |
| 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | 37,504 MTPA | 365 MTPA | 37,869 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing facility |
| 11 | CuCl Cake | 8.2 | 52 MTPA | 0 | 52 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing or pre-processing facility |
| 12 | Ammonium Salt | A-10 | 1717 MTPA | 0 | 1,717 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |
| 13 | Potassium Salt | B-36 | 2,572 MTPA | 0 | 2572 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |

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| | | | | | | |
|---|---|---|---|---|---|---|
| 14 | Sodium Salt | B-36 | 4402 MTPA | 0 | 4402 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF |
| 15 | Zinc Compound | 6.1 | 44 MTPA | 0 | 44 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |
| 16 | Hydrofluoric silic acid (15-40%) | Sch II - Class C - C2 | 4000 MTPA | 0 | 4000 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU |
| 17 | Sulphuric acid (70-95%) | B-15 | 90382 MTPA | 0 | 90382 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU |
| 18 | Hydrochloric Acid (10-33%) | B-15 | 4,11,553 MTPA | 0 | 4,11,553 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or converted in to the Calcium Chloride and then send to actual end users |
| 19 | Sodium Hypochlorite | B-7 | 13,875 MTPA | 0 | 13,875 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU |

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| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | 2593 MTPA | 0 | 2593 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU |
| 21 | Calcium Fluoride | B-10 | 5844 MTPA | 0 | 5844 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |
| 22 | Calcium Chloride | B-10 | 165 MTPA | 0 | 165 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |
| 23 | Sodium methoxide Solution | C7 | 120 MTPA | 0 | 120 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing facility |
| 24 | Phosphorus trichloride | B-35 | 934 MTPA | 0 | 934 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |

Outward No:738542/06/04/2023





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GANDHINAGAR - 382010,
(T) 079-23232152

| | | | | | | |
|---|---|---|---|---|---|---|
| 25 | Gypsum (CaSO4) | 38.1 | 1,62,400 MTPA | 0 | 1,62,400 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or co-processing or pre-processing facility |
| 26 | Aluminium trifluoride | 36.1 | 1000 MTPA | 0 | 1000 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing facility |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | 1500 MTPA | 0 | 1500 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | 2802 MTPA | 0 | 2802 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU or Disposal at approved CHWIF or co-processing or pre-processing facility |
| 29 | Fluoroform (R23) | 28.1 | 240 MTPA | 0 | 240 MTPA | Collection, Storage, In-house treatment (incineration) through Thermal Oxidizer. |
| 30 | Inorganic Sludge generated from Calcium Chloride | 35.3 | 2034 MTPA | 0 | 2034 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF. |
| 31 | Caustic lye | Sch II - Class C - C2 | 36 MTPA | 0 | 36 MTPA | Collection, Storage, Transportation and Disposal by sending to authorized actual end-users having rule-9 permission & valid CCA after making MOU |

Outward No:738542, 07/08/2023



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| | | | | | | |
|---|---|---|---|---|---|---|
| 32 | Ash from Thermal Oxidizer and flue gas cleaning residue | 37.2 | 0 | 40 MTPA | 40 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing facility |
| 33 | Exhaust Air or Gas Cleaning Residue (Mixed/Lean Acid generated from Scrubber of Thermal Oxidizer) | 35.1 | 0 | 1908 MTPA | 1908 MTPA | Collection, Storage, Transportation and Disposal at approved CHWIF or co-processing or pre-processing facility |
| 34 | Insulation waste | -- | 0 | 300 MTPA | 300 MTPA | Collection, Storage, Transportation and Disposal at approved TSDF. |

Unit shall use online manifest system integrated with Vehicle Location Tracking System (VLTS) of XGN.

6. All other conditions of the CCA order no: AWH-119039 issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ID-24521/678954 dated 26/07/2022 shall remain unchanged.

**FOR AND ON BEHALF OF**
**GUJARAT POLLUTION CONTROL BOARD**

**(IRFAN KAGZI)**
**ENVIRONMENT ENGINEER**

Outward No:738542,06/04/2023





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# ANNEXURE – 3
## (A) LIST OF PRODUCTS ALONG WITH THEIR CAPACITY

| Sr. No. | Name of Product | Total Production as per CCA (MT/Annum) | Actual Production (MT/Annum) |
|---|---|---|---|
| 1 | Trifluoro Acetic Acid | 2000 | 1677.46 |
| **2** | Specialty Product | | |
| i | Tetrafluorobenzyl Alcohol | 9900 | 8300.66 |
| ii | Ethyldifluoroacetate | | |
| iii | Ethyl trifluoro acetate | | |
| iv | Ethyltrifluoroacetoacetate | | |
| v | Amino crotonate | | |
| vi | Trifluoroacetic anhydride | | |
| vii | Pentafluorobenzoic Acid | | |
| viii | Pyrazole acid | | |
| ix | Chloro trichloro methyl - cyclopentene | | |
| x | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline | | |
| xi | Fluoromethyl ester | | |
| xii | Diphenylphenol | | |
| xiii | Tetrafluoropropene- 1234yf | | |
| xiv | Isobutyl Acetophenon | | |
| xv | 2-Bromo-5-fluorobenzotrifluoride | | |
| xvi | 2, 2-Difluoroethyl amine | | |
| xvii | 2,3-Dichloro-5-trifluoromethyl-pyridine | | |
| xviii | N[1-{6-Chloro-3-pyridinyl) methyl)-2(1H)-pyridinylidene]-2,2,2, trifluoroacetamide | | |
| xix | (N-(4-fluorophenyl)-2-hydroxy-N-isopropyl-acetamide | | |
| 3 | 1,1,2,2-Tetrafluoroethyl methyl ether | 3000 | 1931.25 |
| 4 | Hexafluoropropylene | 500 | 0 |
| 5 | Ethyl Difluoroacetoacetate | 300 | 0 |
| 6 | Difluoromethanesulphonlychloride | 100 | 0 |
| 7 | 3-Trifluoromethylacetophenone | 1000 | 0 |
| 8 | Trifluoro methyl benzamide | 1700 | 1001.70 |
| 9 | TrifluoroMethyl-2-EthoxyVinyl Ketone | 1000 | 0 |
| 10 | 2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester | 1500 | 743.17 |
| 11 | Pentafluorophenol | 150 | 0 |
| 12 | Monomethyl hydrazine | 3500 | 2862.60 |
| 13 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone) | 500 | 328.57 |
| 14 | Bromopentafluorobenzene | 200 | 0 |
| 15 | Methyl Hydroxy Pyrazole | 100 | 0 |
| 16 | 5-Bromo-2-2-difluoro-1-3-benzodioxide | 500 | 0 |
| 17 | Difluorobenzodioxole methyl ester | 20 | 0 |
| 18 | 2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)-benzenamine (DHA) | 500 | 0 |
| 19 | 2,4,5-Trifluorophenyl acetic acid | 50 | 10.55 |



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| | | | |
|---|---|---|---|
| 20 | Methyl-2- Fluoroacrylate | 50 | 0 |
| 21 | Ethyl-Trifluoropyruvate | 50 | 0 |
| 22 | 2,3-dichloro pyridine | 0 | 0 |
| 23 | 5-Chloro-2,3-difluoropyridine | 600 | 0 |
| 24 | 3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylic Acid | 3500 | 0 |
| 25 | 4 Methoxycyclohexanone (4-MCH) | 600 | 203.24 |
| 26 | 2-amino-3-chloro-5-trifluoromethyl pyridine | 600 | 0 |
| 27 | Hydrazine Hydrate | 3500 | 0 |
| 28 | 2-methyl sulfonyl-5-(trifluoromethyl)- 1,3,4-thiadiazole | 600 | 179.67 |
| 29 | 1,3-Benzodioxole | 500 | 0 |
| **30** | **R&D Products** | 2000 | 1999.27 |
| **31** | **Chlorinated Compound** | | |
| i | Trichloroethylene | 150000 | 138473.30 |
| ii | Perchloroethylene | | |
| iii | Methyl Chloride | | |
| iv | Methylene Dichloride | | |
| v | Chloroform | | |
| vi | Carbon tetrachloride | | |
| **32** | Anhydrous hydrofluoric acid | 40000 | 30798.56 |
| **33** | Chlorotrifluoroethane (HCFC 133a) | 500 | 0 |
| **34** | **HFC Refrigerant** | | |
| i | 1,1,1,2- Tetrafluoroethene (HFC 134a) | 40000 | 33622.82 |
| ii | Pentafluoroethane (HFC 125) | | |
| iii | Difluoromethane (HFC-32) | | |
| iv | 1,1 difluoroethane (HFC-152a) | | |
| v | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a) | | |
| vi | Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404a) | | |
| vii | Refrigerant blend of difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) +1,1,1,2 Tetrafluroethane (HFC 134a) (R407c) | | |
| viii | Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a) | | |
| 35 | R600a (Butane) | 1000 | 301.64 |
| 36 | Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22) | 500 | 0 |
| 37 | Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME) | 500 | 0 |
| 38 | Hydrofluoric acid (20-70%) | 18446 | 5081.16 |
| 39 | Anhydrous hydrochloric acid | 900 | 191.42 |
| 40 | Chlorodifluoromethane (R22) | 12000 | 4253.56 |
| 41 | Calcium chloride | 120000 | 105135.73 |
| **Total** | | **422366.00** | **337096.32** |



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## B) COMMENCEMENT OF PRODUCTION OF PRODUCTS

| Sr. No. | Product | Date of Commencement |
|---|---|---|
| 1 | TRIFLUORO ACETIC ACID | 03/06/2014 |
| **2** | **Speciality Product** | - |
| i | Tetrafluorobenzyl Alcohol | 03/06/2014 |
| ii | ETHYL DI-FLUORO ACETATE ( EDFA ) | 21/01/2013 |
| iii | ETHYL TRIFLUORO ACETATE | 21/01/2013 |
| iv | Ethyltrifluoroacetoacetate | 03/06/2014 |
| v | Amino crotonate | 03/06/2014 |
| vi | Trifluoroacetic anhydride | 03/06/2014 |
| vii | Pentafluorobenzoic Acid | 03/06/2014 |
| viii | PYRAZOLE ACID | 21/01/2013 |
| ix | Chloro trichloro Methyl – Cyclopentene | 21/01/2013 |
| x | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline | 22/02/2018 |
| xi | Fluoromethyl ester | 03/06/2014 |
| xii | Diphenylphenol | 03/06/2014 |
| xiii | Tetrafluoropropene | 03/06/2014 |
| xiv | Isobutyl Acetophenon | 03/03/2022 |
| xv | 2-BROMO-5-FLUOROBENZOTRIFLUORIDE(BFBTF) | 25/10/2019 |
| xvi | 2,2-Difluroethylamine | 03/03/2022 |
| xvii | 2,3-Dichloro-5-trifluoromethyl-pyridine | 03/03/2022 |
| xviii | N[1-{6-Chloro-3-pyridinyl)methyl)-2(1H)-pyridinylidene]-2,2,2, trifluoroacetamide | 03/03/2022 |
| xix | (N-(4-fluorophenyl)-2-hydroxy-N-isopropyl-acetamide | 03/03/2022 |
| 3 | 1,1,2,2-TETRA FLUORO ETHYL METHYL ETHER | 17/05/2018 |
| 4 | HEXAFLUOROPROPYLENE | 22/02/2018 |
| 5 | Ethyl Difluoroacetoacetate | 03/03/2022 |
| 6 | Difluoromethanesulphonlychloride | 22/02/2018 |
| 7 | 3-Trifluoromethylacetophenone | 03/03/2022 |
| 8 | Trifluoromethylbenzamide | 22/02/2018 |
| 9 | TrifluoroMethyl-2-EthoxyVinyl Ketone | 03/03/2022 |
| 10 | 2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester | 22/02/2018 |
| 11 | Pentafluorophenol | 22/02/2018 |
| 12 | MONO METHYL HYDRAZINE | 22/02/2018 |
| 13 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) | 17/05/2018 |
| 14 | Bromopentafluorobenzene | 22/02/2018 |
| 15 | Methyl Hydroxy Pyrazole | 03/03/2022 |
| 16 | 5-Bromo-2-2-difluoro-1-3-benzodioxide | 22/02/2018 |
| 17 | Difluorobenzodioxole methyl ester | 22/02/2018 |
| 18 | 2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)benzenamine (DHA) | 03/03/2022 |
| 19 | 2,4,5-Trifluorophenyl acetic acid | 03/03/2022 |



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| | | |
|---|---|---|
| 20 | Methyl-2- Fluoroacrylate | 17/05/2018 |
| 21 | Ethyl-Trifluoropyruvate | 22/02/2018 |
| 22 | 2,3-dichloro pyridine | 25/10/2019 |
| 23 | 5-Chloro-2,3-difluoropyridine | 25/10/2019 |
| 24 | 3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylic Acid | 25/10/2019 |
| 25 | 4-methoxy cyclohexanone (SS16) | 25/10/2019 |
| 26 | 2 Amino 3 Chloro trifluro methyl pyridine | 03/03/2022 |
| 27 | Hydrazine Hydrate | 03/03/2022 |
| 28 | 2-methylsulfonyl-5-(trifluoromethyl)-1,3,4-thiadiazole | 03/03/2022 |
| 29 | 1,3 Benzodioxole | 25/10/2019 |
| 30 | **R&D Products** | 22/02/2018 |
| **31** | **Chlorinated Compound** | |
| i | Trichloroethylene | 21/01/2013 |
| ii | Perchloroethylene | 21/01/2013 |
| iii | Methyl Chloride | 03/03/2022 |
| iv | Methylene dichloride | 22/02/2018 |
| v | Chloroform | 22/02/2018 |
| vi | Carbon tetrachloride | 22/02/2018 |
| 32 | Anhydrous Hydrofluoric acid | 21/01/2013 |
| 33 | Chlorotrifluoroethane (HCFC 133a) | 22/02/2018 |
| **34** | **HFC Refrigerant** | |
| i | 1,1,1,2 Tetrafluroethane (HFC 134a) | 21/01/2013 |
| ii | Pentafluoroethane (HFC 125) | 21/01/2013 |
| iii | Difluoromethane (HFC - 32 ) | 22/02/2018 |
| iv | 1,1 difluoroethane (HFC-152a) | 22/02/2018 |
| v | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a) | 22/02/2018 |
| vi | Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404a) | 22/02/2018 |
| vii | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R407c) | 22/02/2018 |
| viii | Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a) | 22/02/2018 |
| 35 | R600a (ISO Butane) | 22/02/2018 |
| 36 | Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22) | 22/02/2018 |
| 37 | Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME) | 22/02/2018 |
| 38 | Hydrofluoric acid (20-70%) | 22/02/2018 |
| 39 | Anhydrous Hydrochloric acid | 22/02/2018 |
| 40 | Chlorodifluoromethane (R22) | 03/03/2022 |
| 41 | Calcium Chloride | 03/06/2014 |



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# ANNEXURE – 4

## MONTH WISE NUMBER OF DAYS OF OPERATION

| Month | Days |
|---|---|
| **Apr-23** | 30 |
| **May-23** | 31 |
| **Jun-23** | 30 |
| **Jul-23** | 31 |
| **Aug-23** | 31 |
| **Sep-23** | 30 |
| **Oct-23** | 31 |
| **Nov-23** | 30 |
| **Dec-23** | 31 |
| **Jan-24** | 31 |
| **Feb-24** | 29 |
| **Mar-24** | 31 |
| **TOTAL** | **366** |



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# ANNEXURE – 5

## MONTH WISE ELECTRICITY CONSUMPTION

| Month & Year | Electrical Consumption for Production | Total Production in (MT) | Electricity Consumption per MT of Product (KWH) |
|---|---|---|---|
| **Apr-23** | 21318443 | 25445 | 838 |
| **May-23** | 22631219 | 28685 | 789 |
| **Jun-23** | 21560433 | 27120 | 795 |
| **Jul-23** | 23072201 | 32622 | 707 |
| **Aug-23** | 21799964 | 19518 | 1117 |
| **Sep-23** | 23908060 | 22703 | 1053 |
| **Oct-23** | 25097697 | 25023 | 1003 |
| **Nov-23** | 25244559 | 33752 | 748 |
| **Dec-23** | 26143953 | 33773 | 774 |
| **Jan-24** | 26178845 | 39247 | 667 |
| **Feb-24** | 26266335 | 24300 | 1081 |
| **Mar-24** | 24672735 | 24908 | 991 |
| **Total** | **287894444.0** | **337096.3** | **10562.6** |



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# ANNEXURE – 6

## MONTH WISE PRODUCT & BY-PRODUCT

| Month | Total Production (MT) | |
|---|---|---|
| | Product | By-product |
| **Apr-23** | 25445.22 | Nil |
| **May-23** | 28684.89 | |
| **Jun-23** | 27119.95 | |
| **Jul-23** | 32621.91 | |
| **Aug-23** | 19517.62 | |
| **Sep-23** | 22703.36 | |
| **Oct-23** | 25022.51 | |
| **Nov-23** | 33751.87 | |
| **Dec-23** | 33773.15 | |
| **Jan-24** | 39247.11 | |
| **Feb-24** | 24300.49 | |
| **Mar-24** | 24908.26 | |
| **Total** | **337096.30** | |
| **Avg./Month** | **28091.36** | |



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# ANNEXURE – 7

## RAW MATERIAL CONSUMPTION

| Raw Material Data, Fy 2023-24 | | |
|---|---|---|
| **Sr. No.** | **Material Name** | **Consumption in MT/Year** |
| 1 | **Trifluoro Acetic Acid** | |
| | R0030 | 7071.162 |
| | AHF | 3215.991 |
| | 98% H2SO4 | 6532.067 |
| | W0681 | 327.337 |
| | W0034 | 143.517 |
| 2 | **Ethyldifluoroacetate** | |
| | P14+1 | 31.08428439 |
| | Ethanol (Invoice) | 10.402 |
| 3 | **Ethyltrifluoroacetoacetate** | |
| | P7 | 892.347 |
| | RM-3236/R0010 | 831.83 |
| | R0012 | 445.6 |
| | ANH. HCL | 240.211 |
| | RM-3234/R0404 | 92.116 |
| | R0037 | 1.7495 |
| | 48% NaOH | 25.654 |
| 4 | **Ethyl Trifluoroacetate** | |
| | P7 | 892.347 |
| | R000000000010 | 831.83 |
| | R000000000012 | 445.6 |
| | R000000000068 | 240.211 |
| | Hy-Flow | 92.116 |
| | R000000000037 | 1.7495 |
| | 48% NaOH | 25.654 |
| 5 | **Amino crotonate** | |
| | ETFAA | 487.722 |
| | Cyclo Hexane | 51.721 |
| | R000000000600 | 66.038 |
| 6 | **2,4,5-Trifluorophenyl acetic acid** | |
| | SS5600 | 27.562 |
| | Ethyl Cyanoacetate | 19.82 |
| | Potassium Carbonate | 42.5 |



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| | | |
|---|---|---|
| | Ethyl Acetate | 48.117 |
| | Tetrabutylammonium bromide | 1.563 |
| | Sodium Chloride | 40.544 |
| | Calcium Chloride | 1.88 |
| | Hydrochloric Acid | 44.843 |
| | Sulphuric Acid | 213.833 |
| | Sodium Hydroxide 47% | 31.07 |
| | N-Methyl-2-pyrrolidone | 11.878 |
| | MDC | 34.331 |
| | SS-5604 | 0.395 |
| | Activated Carbon | 0.554 |
| | Supercell/Hyflow Aid | 1.224 |
| | Potassium Carbonate | 7.7 |
| | Hydrochloric Acid | 7.79 |
| | Hypo | 3.1 |
| | TEA | 1.55 |
| 7 | **Pyrazole Acid** | |
| | R0041 | 2533.41 |
| | R0140 | 4158.98 |
| | R0263 | 1799.8 |
| | R0168 | 766.11 |
| | R0006 | 350.45 |
| | R0044 | 1379.57 |
| | R0037 step-2 | 712.19 |
| | ROO37 Step-1 | 163.81 |
| | R0032 | 675.57 |
| | R0032 | 0 |
| | R0076 | 2616.53 |
| | CAUSTIC LYE | 2616.53 |
| | ANHYDROUS HCL | 0 |
| | HYDROCHLORIC ACID | 7480.75 |
| | FP143 | 3470.491 |
| 8 | **2-Bromo-5-fluorobenzotrifluoride(BFBTF)** | |
| | METHYLENE CHLORIDE | 279.189 |
| | P-4501 | 155.001 |
| | CAUSTIC LYE | 541.148 |
| | P-4502 | 85.254 |
| | SODIUM BROMIDE SOLUTION | 274.487 |
| | Sodium Bisulphite | 29 |
| | LIQUID CHLORINE | 738.51 |



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| | | |
|---|---|---|
| | HYDROCHLORIC ACID | 1458.89 |
| | PYRIDINE | 259.48 |
| | ANHYDROUS HYDROFLUORIC ACID | 1278.98 |
| | Sodium Nitrite Anti-Caking Grade Powder | 362.5 |
| | Sodium Bisulphite | 72.5 |
| | SULPHURIC ACID | 766.14 |
| 9 | **Chlorotrichloro Methyl - Cyclopentene** | |
| | DCPD | 767.011 |
| | CTC | 1443.908 |
| | R0077 | 11.883 |
| | R0075 | 55.115 |
| | R0070 | 29.281 |
| | RM-3208/R0053 | 10.597 |
| | R0166 | 192.592 |
| 10 | **1,1,2,2-Tetrafluoroethyl Methyl Ether** | |
| | MONOCHLORODIFLUOROMETHANE R22 | 5319.733 |
| | METHANOL | 962.784 |
| | CAUSTIC POTASH LYE | 317.923 |
| | SULPHURIC ACID | 2267.448 |
| | DIPENTINE | 1.02 |
| | Dimethyl Formamide | 3.8 |
| | ANHYDROUS HCL | 99.172 |
| | SODIUM META BISULPHITE | 9.966 |
| | SODIUM METHOXIDE | 162.629 |
| | CAUSTIC LYE | 22.55 |
| 11 | **Trifluoromethylbenzamide** | |
| | R0166 | 693.541 |
| | AIBN | 35.545 |
| | Liq. Chlorine | 3271.341 |
| | AHF | 695.564 |
| | 98% H2SO4 | 1252.069 |
| | 95% H2SO4 | 1336.71 |
| | MDC | 384.563 |
| | RM-3226/R0163 | 498.255 |
| | 48% NaOH | 2371.028 |
| | MeOH | 32.591 |
| | R0024 | 0.41 |
| 12 | **2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester** | |
| | R0090 | 576.749 |
| | W0002 | 174.325 |



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| | | |
|---|---|---|
| | R000000000600 | 49.251 |
| | P-3911/R0023 | 24.2 |
| | R0026 | 30.2 |
| | R0166 | 125.401 |
| | P-3930/W0157 | 476.264 |
| 13 | **Mono methyl Hydrazine** | |
| | R0229 | 1746 |
| | R0006 | 3033.1 |
| | AHCl | 3011.9 |
| | NaOH | 5440.5 |
| | H2SO4 | 0 |
| 14 | **[3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone)** | |
| | N-BUTANOL | 435.678 |
| | SODIUM NITRITE | 432.6 |
| | CAUSTIC LYE (NAOH) | 1410.966 |
| | HYDROGEN PEROXIDE 50% SOLUTION | 486.4619167 |
| | LIQUID NITROGEN | 6922.209 |
| | HYDROCHLORIC ACID | 3242.9919 |
| | METHYLENE CHLORIDE | 433.054 |
| | DIMETHYL FORMAMIDE (DMF) | 1378.107 |
| | SC-50 | 429.242 |
| | RM-3203 | 337.055 |
| | LIQUID CHLORINE | 208.561 |
| | Potassium Carbonate – Powder | 305.524 |
| | RM-3207 | 238.09 |
| | BUTYL ACETATE | 584.688 |
| | Potassium Carbonate – Granules | 382.27 |
| | METHANOL | 450.696 |
| | HYDROGEN GAS | 16.69274336 |
| | AQ. NH3 (AQUEOUS AMMONIA) | 210.98523 |
| | ACTIVATED CARBON POWDER - Grade Carbopal Gn-P - MAKE: DONAU CARBON | 32.837 |
| | RM-3212 | 0.29628138 |
| | RM-3218 | 164.935 |
| | 47% HYDROBROMIC ACID (HBR) | 297.456 |
| | POTASSIUM SULFITE | 94.519 |
| | 5-ETHYL-2-METHYLPYRIDINE (MEP) | 42.84 |
| | RM-3234 | 136.72 |
| | RM-3219 | 1.1397 |
| | ETHYL ACETATE | 14.885 |



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| | | |
|---|---|---|
| | ACETIC ACID | 353.04 |
| | RM-3221 | 4.2645 |
| | SS-25 | 162.489 |
| | 1,4- DIOXANE | 226.184 |
| | RM-3227 | 330.118 |
| | FORMIC ACID | 134.541546 |
| | RM-3223 | 10.27 |
| | RM-3225 | 0.5044 |
| | Sulphuric acid | 241.29 |
| | SODIUM CARBONATE | 848.37 |
| 15 | **4-Methoxycyclohexanone** | |
| | P40 STEP-2 99% purity | 257.155 |
| 16 | **2-(methyl sulfonyl)-5-(trifluoromethyl)- 1,3,4-thiadiazole** | |
| | CS2 | 100.015 |
| | HYDROBROMIC ACID | 258.21128 |
| | METHANOL | 50.091 |
| | Toluene | 27.562 |
| | CAT4101 | 5.352 |
| | Hydrazine Hydrate | 83.373 |
| | AQUEOUS AMMONIA | 61.978 |
| | HYDROGEN PEROXIDE | 335.388 |
| | POTASSIUM SULFITE | 67.971 |
| | CAUSTIC LYE | 236.224 |
| | TFA | 105.399 |
| | Sulpuric acid | 1169.971 |
| | Acetic acid | 151.126 |
| | Sodiam tungstate | 2.82 |
| 17 | **Chlorinated Compound** | |
| i | **Trichloroethylene / Perchloroethylene** | |
| | EDC (MT) | 21226.331 |
| | Chlorine (MT) | 35261.2611 |
| | AIBN (MT) | 35.308 |
| | Ba(OH)2 (MT) | 15.79 |
| | NaOH (MT) | 124.99 |
| ii | **Methyl chloride, Methylene dichloride, Chloroform, Carbon tetrachloride** | |
| | Methanol | 41534.19 |
| | Chlorine | 115972.58 |
| | Sulphuric acid | 14716.58 |
| | Caustic Lye 48 % | 1768.21 |
| iii | **Anhydrous Hydrofluoric acid** | |



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| | | |
|---|---|---|
| | Fluorspar (MT) | 72072.87611 |
| | Sulphuric acid (MT) | 67375.054 |
| | Oleum (MT) | 15752.815 |
| 18 | **HFC Refrigerant** | |
| i. | **1,1,1,2 Tetrafluroethane (HFC 134a)** | |
| | Trichloroethylene | 17724.767 |
| | AHF | 11552.402 |
| | Sulphuric acid | 1817.240982 |
| ii | **Pentafluoroethane (HFC 125)** | |
| | Perchloroethylene | 8043.052 |
| | AHF | 5047.6 |
| | Sulphuric acid | 519.33 |
| iii | **Difluoromethane (HFC - 32 )** | |
| | C2 | 17921.0221 |
| | AHF | 8860.778 |
| | Sulphuric acid | 2097.721 |
| iv | **CaCl2** | |
| | Limestone | 34060.84195 |
| | Hydrochloric acid | 71535.636 |
| v | **Chlorodifluoromethane (R22)** | |
| | C3 | 6127.971 |
| | AHF | 2255.706 |
| | Sulphuric acid | 699.612 |



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# ANNEXURE-8

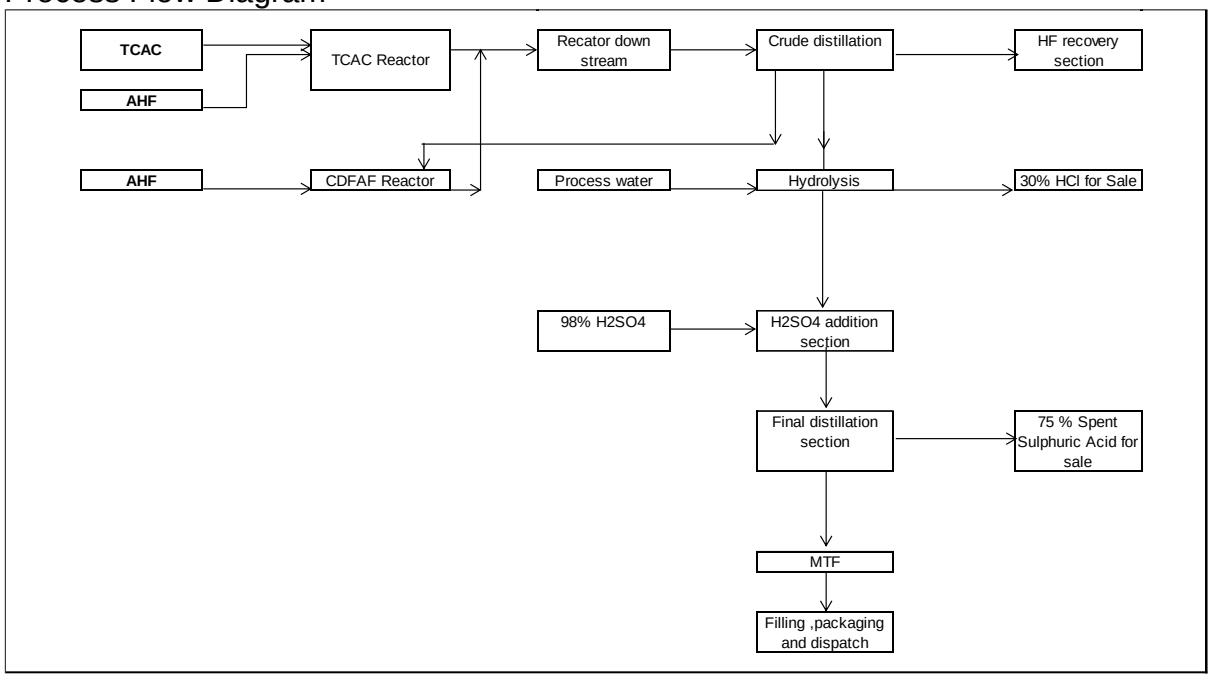
## DETAILS OF MANUFACTURING PROCESS WITH MATERIAL

### 1. Trifluoro acetic acid (TFA)

Process Description:

Trichloroacetyle chloride is reacted with Anhydrous Hydrofluoric acid in presence of catalyst and form Trifluoro acetyl fluoride, chlorodifluoro acetyl fluoride and hydrochloric acid , Chlorodifluoro acetyl fluoride again recycled from crude distillation section to 2nd reactor (CDFAF) and converted in TFAF .TFAF from TFAF tower going to derivative stream and remain go for hydrolysis ,30 % HCl produced from HCl scrubbing section. After hydrolysis this material goes to sulfuric acid addition section and final distillation section for final product. 30 % HCl stream from hydrolysis section and 75 % Sulfuric acid from final distillation section for sale as a Product.

Process Flow Diagram




### 2. Specialty Products

### i. Ethyldifluoroacetate

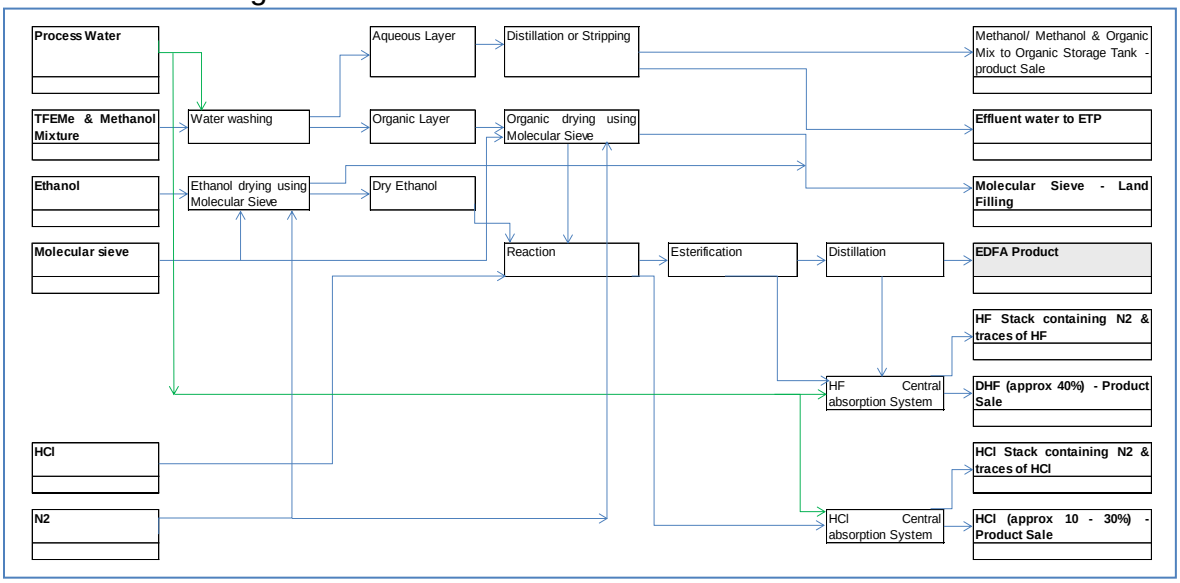
Process Description:

TFEMe is received with Ethanol present into it. It will water washed to remove water & then dried to remove Moisture. Dry TFEMe is pyrolyzed in presence of Iron based Catalyst to produce Acetyl fluoride. The vent of the reactor, containing Acetyl fluoride, will take to the esterification section, where the vent gas reacts with ethanol to form crude EDFA product. Crude EDFA product will distill to produce pure EDFA. HF will send to HF Scrubber to produce HF (approx.40 %). Catalyst activation will done use of HCl gas. Excess HCl will go to HCl scrubber. Water & Methanol mixture will either distilled for Methanol recovery or it will be go to Organic stripper, before sending it to ETP.



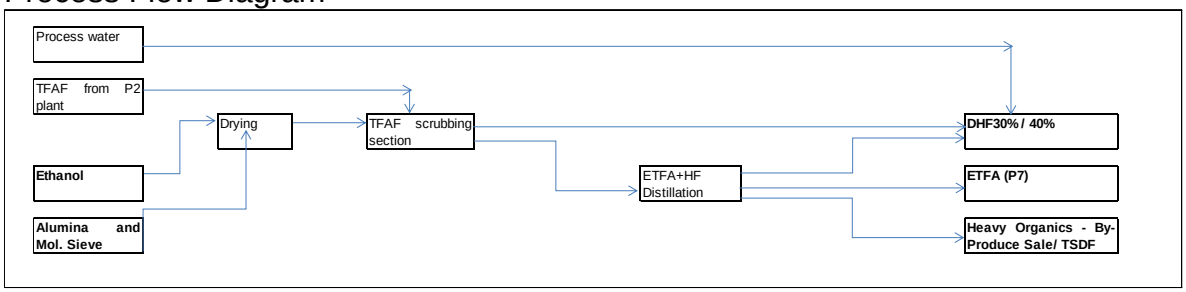
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Process Flow Diagram




## ii. Ethyl Trifluoro Acetate

Process Description
Reaction of Trifluoroacetyl fluoride (TFAF) with Ethanol to form EthylTrifluoro acetate (ETFA) and Hydrogen fluoride. HF is separated from distillation and pure ETFA is recovered.
Process Flow Diagram



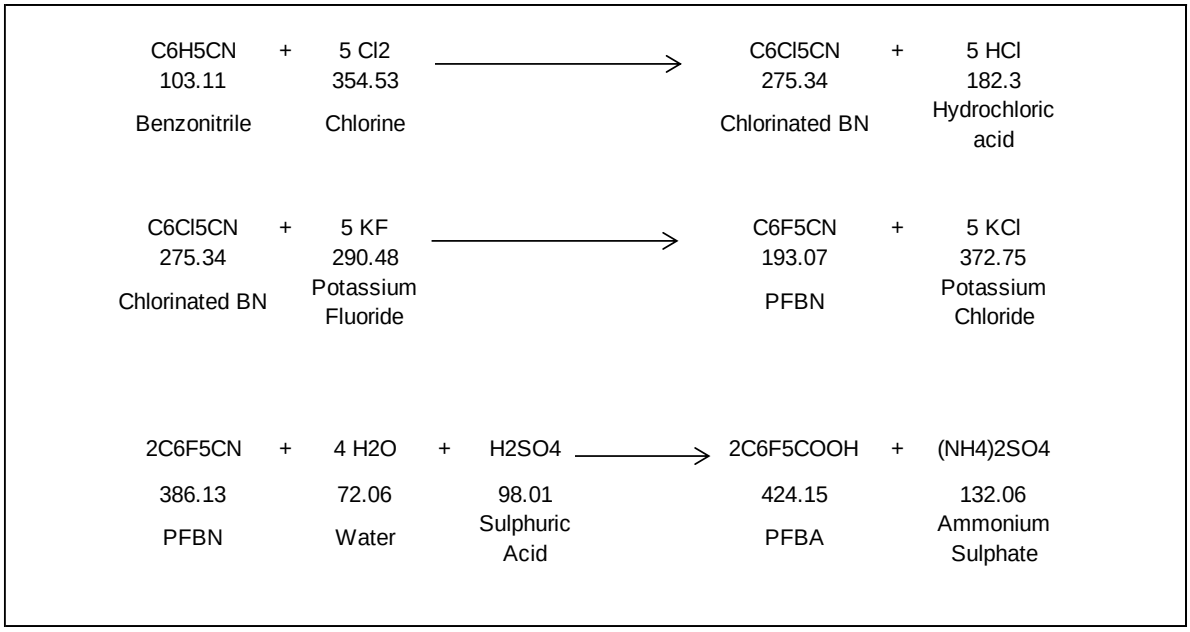

## iii. Pentafluorobenzoic Acid (PFBA)

Process Description:
Benzonitrile (BN) will chlorinate in the Reactor. Chlorinated BN then fluorinated to form Fluorinated BN, PFBN (Pentafluorobenzonitrile). It will be hydrolysed by using Sulphuric Acid & H2O to produce PFBA.

Chemical Reaction:



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### iv. Pyrazole Acid

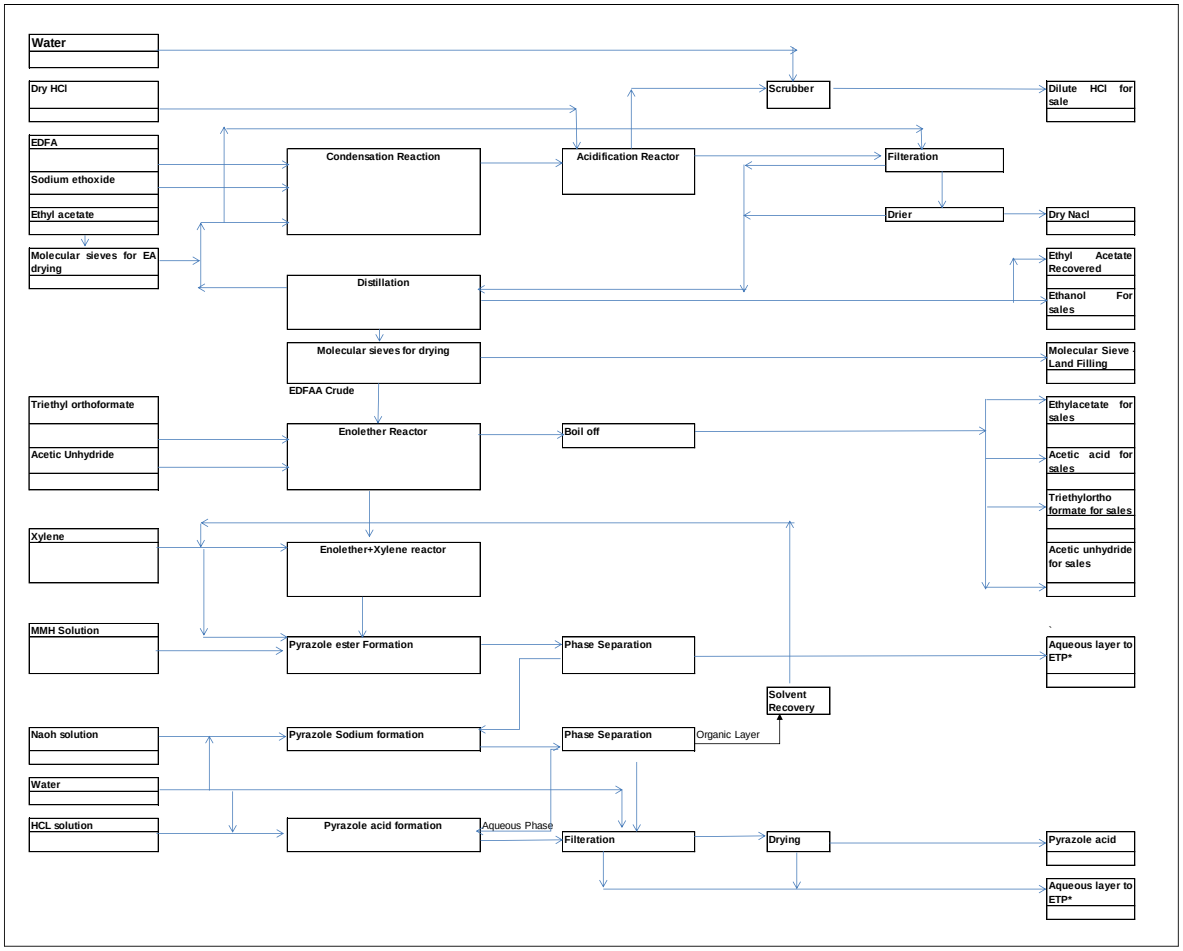
Process Description:

EDFA is reacted in presence of Sodium ethoxide catalyst to form salt of EDFAA in presence of Ethyl acetate Salt is acidified with Dry HCL to form EDFAA and Sodium Salt at RT. It is taken to filteration to remove sodium chloride salts EDFAA with solvents then taken to distillation column to recover EDFAA crude EDFAA is reacted in presence of Acetic Anhydride with Orthoformate to give Enolether. The Enolether from step -2 is reacted with MMH in presence of Xylene to form pyrazole ester & ethanol. Pyrazole ester on reacting with caustic lye to form pyrazole sodium & on further acidification with HCL to form pyrazole acid salt. Pyrazole acid salt will be filtered & dried to get dry pyrazole acid.

Process Flow Diagram:



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## v. Chloro trichloro Methyl – Cyclopentene

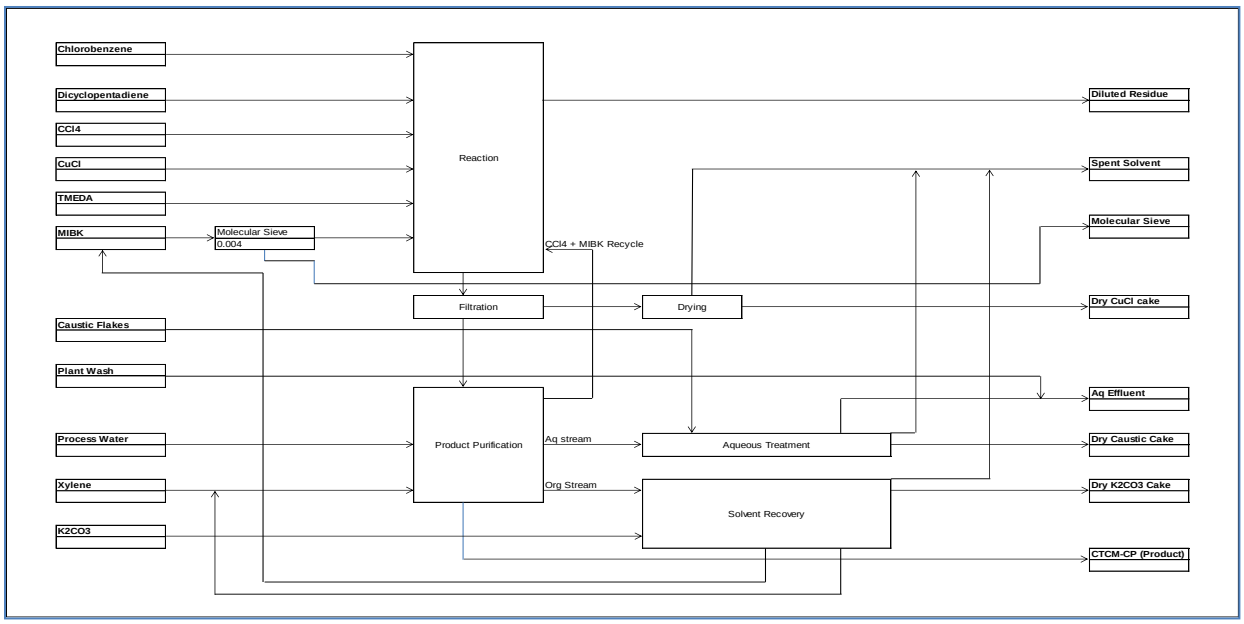
Process Description

Dicyclopentadiene (DCPD) will crack to Cyclopentadiene (CPD) at temperature of 150°C. CPD will react with CCl4 in presence of catalyst solution comprising of CuCl, TMEDA (Tetramethylethylenediamine) & MIBK (Methyl isobutyl ketone) and mixture of CCl4 & MIBK. This leads to the formation of CTCM-CP. Reaction mass will go for filtration. CuCl cake will send for drying & sold. CCl4 & MIBK will stripped off from the Reactor mass, go for water wash. Aqueous layer will send for caustic treatment & then post organic stripping, send to ETP. Organic layer will send to Distillation after addition of xylene & desired Product will obtain. Product distillation overhead will go to a distillation column for Xylene & MIBK recovery & recycling.

Process Flow Diagram:



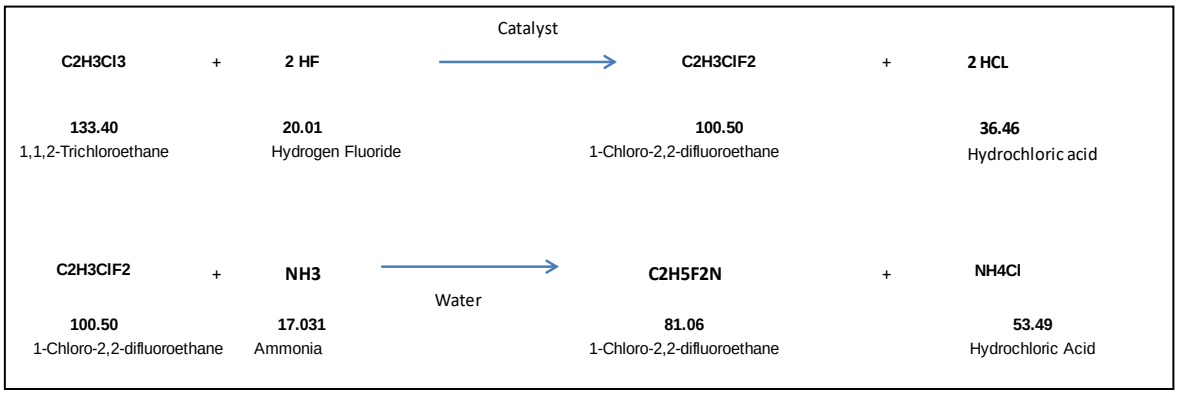
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### vi. 2,2-Difluroethylamine

Process Description:
1,1,2-Trichloroethane (TCA) reacts with Hydrogen Fluoride in presence of catalyst and form 1-Chloro-2,2-Difluroethane, 1-Chloro-2,2-difluoroethane reacts with Ammonia to form 1-Chloro-2,2-diflouroethane.

Chemical Reaction:




## 3. 1,1,2,2-Tetrafluoroethyl Methyl Ether (TFEMe)

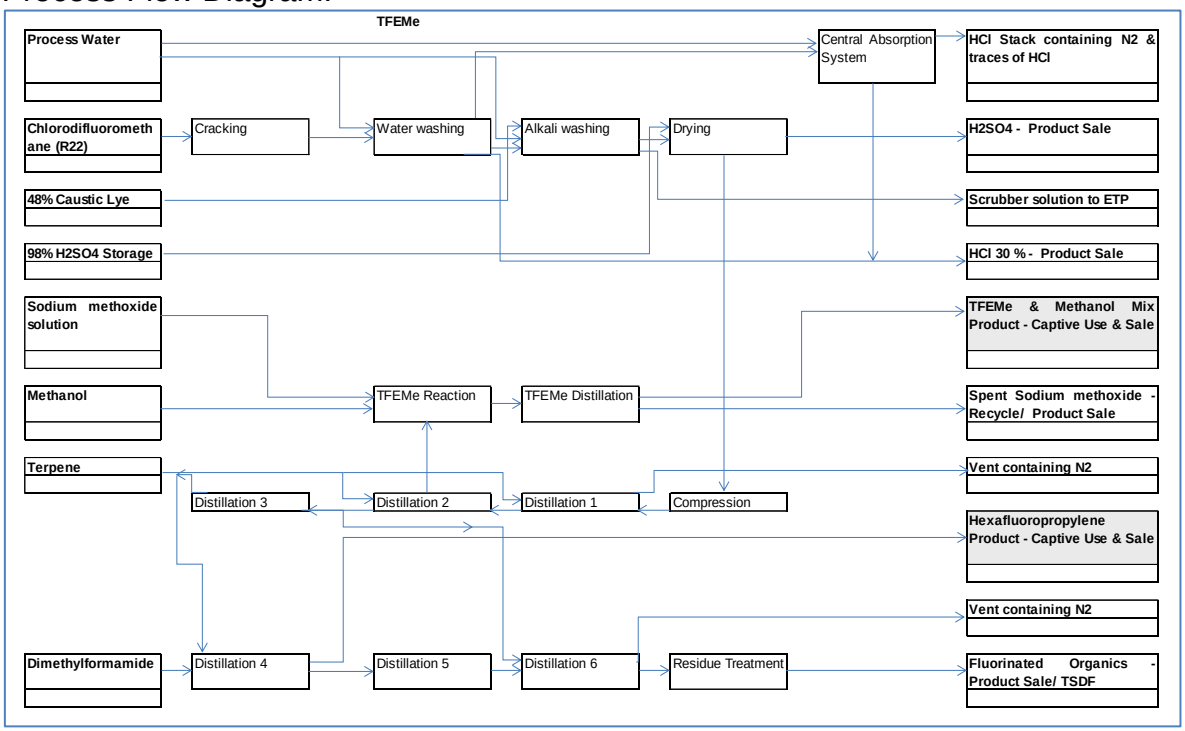
Process Description:
Chlorodifluoromethane (R22) wills pyrolyse at High Temp. In electrically heated furnace. On pyrolysis, R22 breaks in to No. of products with HCl gas as product. Product Gas Mix containing HCl will pass through HCl absorbers where Fresh water will circulate in absorber to absorb HCl gas & make product Gas HCl free. In this stage 30 % HCl solution will generate as product of the process. Gas will be washed with Alkali solution & dried before sending to Compressor section. Product gas will be compressed at High pressure to achieve condensation of the Gas mix. In Liquid form which will be fed to Distillation section for separation of products. Distillation Section: In this section Tetrafluoroethylene (TFE) & Hexafluoropropylene (HFP) will separate out from product gas mix. Unreacted R22 will separate & recycle back to Reaction section. Residue from the Distillation section will treat



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with solvent & send for Incineration. Tetrafluoroethyl methyl ether Reaction Section: TFE will react with Methanol in presence of Catalyst in pressure Reactor to form TFEMe. TFEMe Distillation Section: TFEMe + unreacted Methanol mix will feed to Distillation column for Separation of TFEMe & unreacted Methanol. Unreacted Methanol will recycle back to Reactor.

Process Flow Diagram:



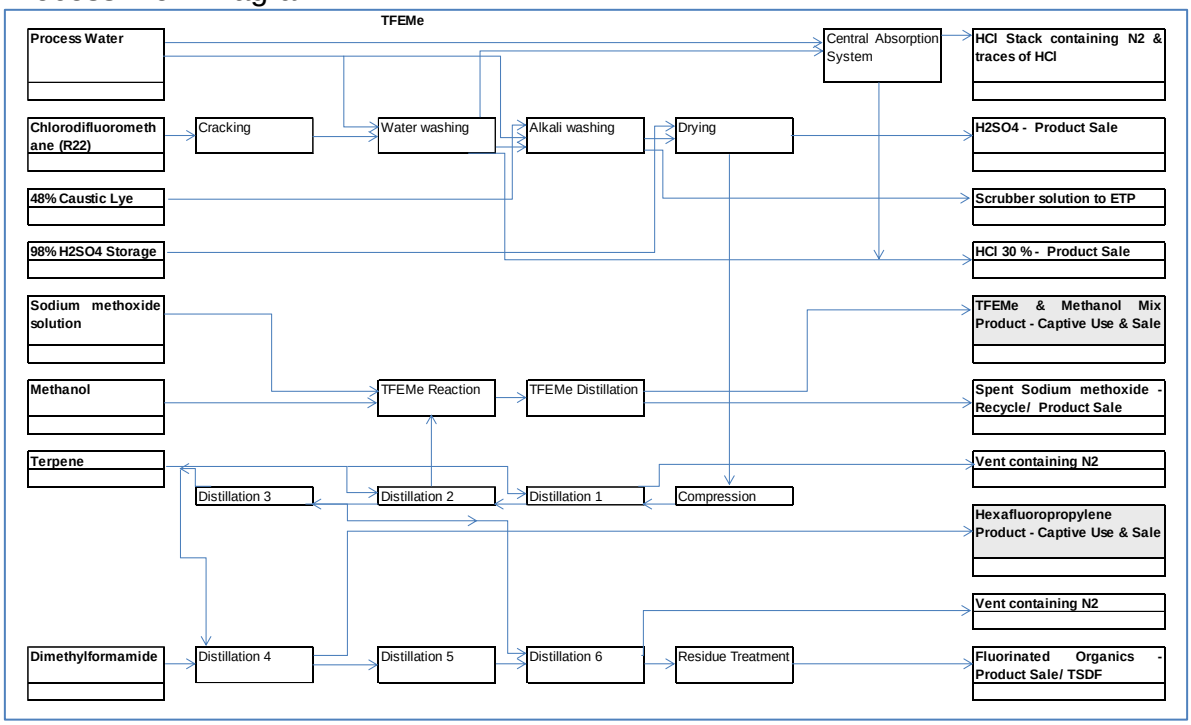

## 4. Hexafluoropropylene

Process Description:
Reaction Section: Chlorodifluoromethane (R22) will pyrolyse at High Temp. In electrically heated furnace. On pyrolysis, R22 breaks in to No. of products with HCl gas as product.
Refining Section: Product Gas Mix containing HCl will pass through HCl absorbers where Fresh water will circulate in absorber to absorb HCl gas & make product Gas HCl free. In this stage 30 % HCl solution will generate as product of the process. Gas will be washed with Alkali solution & dried before send to Compressor section. Product gas will compress at High pressure to achieve condensation of the Gas mix in Liquid form which will be feed to Distillation section for separation of products.
Distillation Section: In this section Tetrafluoroethylene (TFE) & Hexafluoropropylene (HFP) will separate out from product gas mix. Unreacted R22 will separate & recycle back to Reaction section. Residue from the Distillation section will treat with solvent & send for Incineration.
Tetrafluoroethyl methyl ether Reaction Section: TFE will react with Methanol in presence of Catalyst in pressure Reactor to form TFEMe.
TFEMe Distillation Section: TFEMe + unreacted Methanol mix will feed to Distillation column for Separation of TFEMe & unreacted Methanol. Unreacted Methanol will recycle back to Reactor.



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Process Flow Diagram:




## 5. Trifluoro Methyl Benzamide

Process Description

Step 1: Ortho Xylene, AIBN and Chlorine will charge to the reactor to produce step -1 product. The vent gases was scrubbed

Step 2: Step-1 Product and HF will charge to the reactor to produce step -2 products. The vent gases scrubbed.

Step 3: Step-2 Product, Methylene dichloride and H2SO4 will charge to the reactor for hydrolysis to form Step-3 Product and vent gas was scrubbed. Further processing of product will be done and taken to the next step.

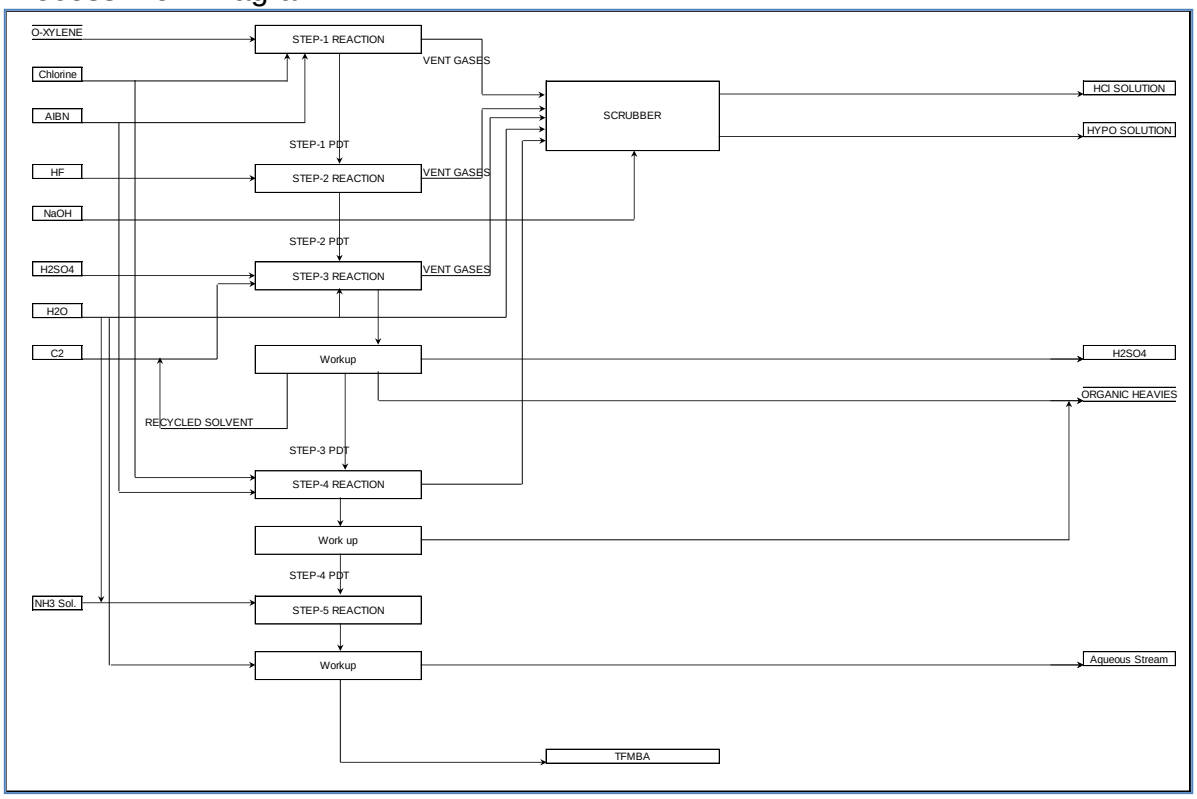
Step 4: Step-3 product, AIBN and Chlorine will charge in the reactor .The vent gases was scrubbed. And taken to the next step.

Step 5: Step-4 product, ammonia solution and water was added the reactor. Further processing of product will be done. Pure Product will be obtained at the end of this step and it will be sent to storage.



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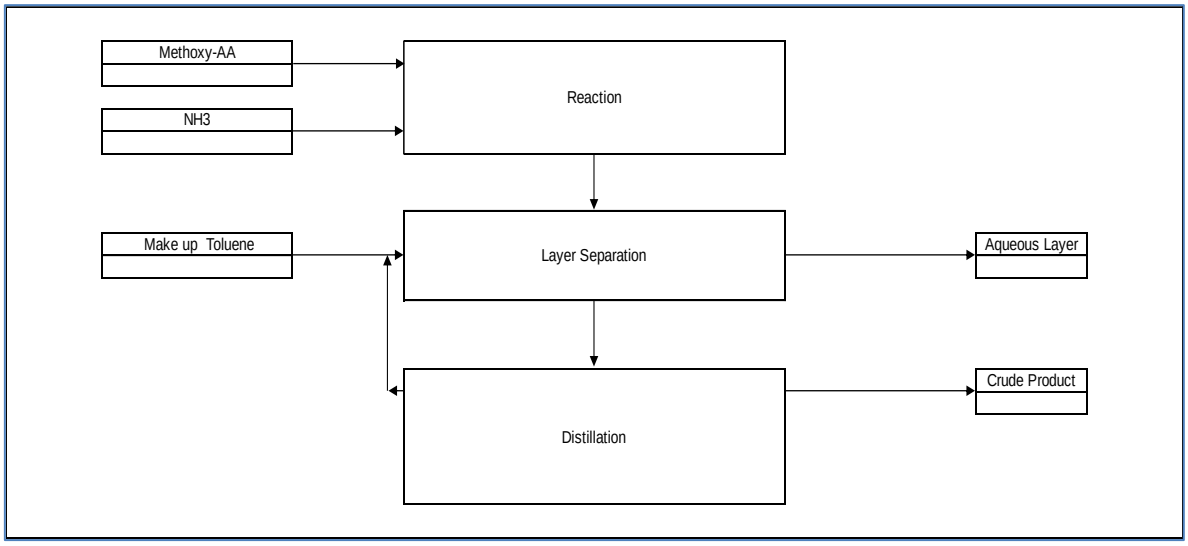
Process Flow Diagram




## 6. 2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester

Process Description:

Charge Methoxy AA and Toluene into the reactor and purge Ammonia. Water removed from the reaction mixture and crude product taken for next step. Step 1 and Step 2 material will charge into the reactor in presence of acetic acid. A low boiler was removed and crude product will be further purified at reduced pressures.



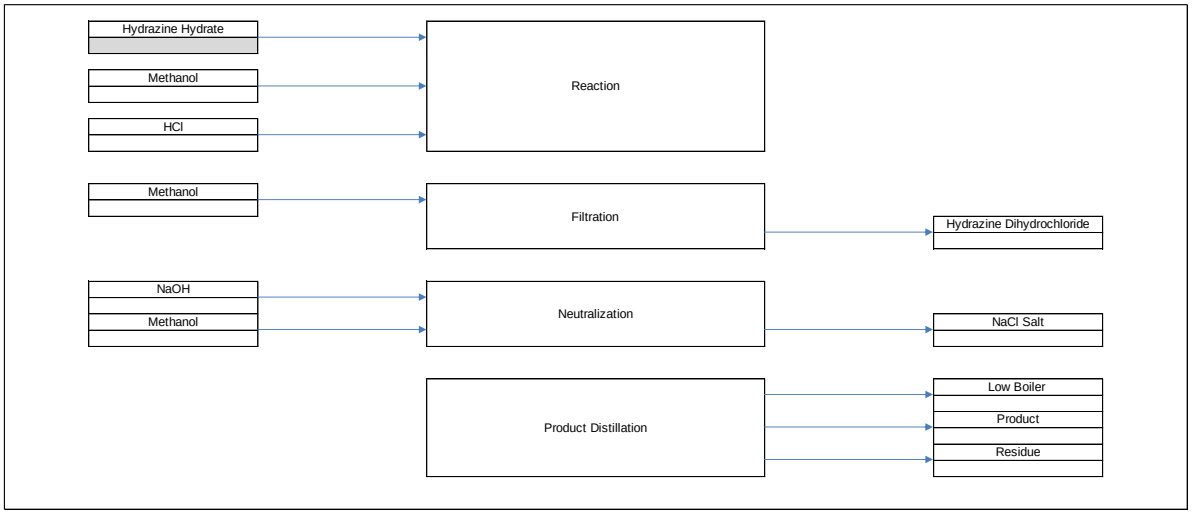



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## 7. Monomethylhydrazine

Process Description:
Hydrazine Hydrate charged into the mix of Methanol and HCl. Reaction mixture will filtrate to recover Hydrazine Dihydrochloride. NaOH added to the filtrate for the formation of MMH and NaCl. Material will be filtered and filtrate was taken for final distillation to get 35-40% MMH solution in water.

Process Flow Diagram:




## 8. [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-l)methanone (Topramezone)

Process Description:
Step 1: 3-Nitro-o-xylol reacts with potassium methoxide and butyl nitrite in presence of DMF and catalytic quantity of butanol to form salt of OXIM. This salt will be hydrolysed with concentrated HCl to form EXP-Oxim and potassium chloride. Precipitated product was filtered and washed. EXP-Oxim thus obtain will take to Step-2 without drying.
Step 2: Step-1 Product (EXP-Oxim) was dried using azeotropic distillation and chlorinated with vapor chlorine in presence of Butyl Acetate as solvent. The chlorinated product EXP-HSCl in butyl acetate was cyclized using ethylene in a pressurized reactor. Cyclization takes place in presence of K2CO3, water, butyl acetate and ethylene in a pressurized reactor. After the reaction product was acidified using HCl (15-33%) and crystallized by removing butyl acetate and cooling.
Step 3: Step-2 product was hydrogenated by reacting with Hydrogen in presence of Pd/C catalyst under pressure at a temperature of 30 ºC. Activated Carbon will add to the reaction mixture as filtration media. Methanol was used as solvent for the reaction.
Step 4: Step-3 product was brominated using HBr(48%) and H2O2 (50%). Potassium sulfite will be used to kill any residual peroxide and the mixture was washed with caustic solution to remove any impurities. Pyridine was used as solvent for the reaction.
Step 5: Step-4 product will take for thiomethylation where it will react with DMDS and n-Butyl Nitrite in presence of Cu (catalyst). Subsequently the reaction mass was washed with HCl



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and NaOH to remove Cu from the reaction mixture. DMDS was also used as solvent in this reaction.

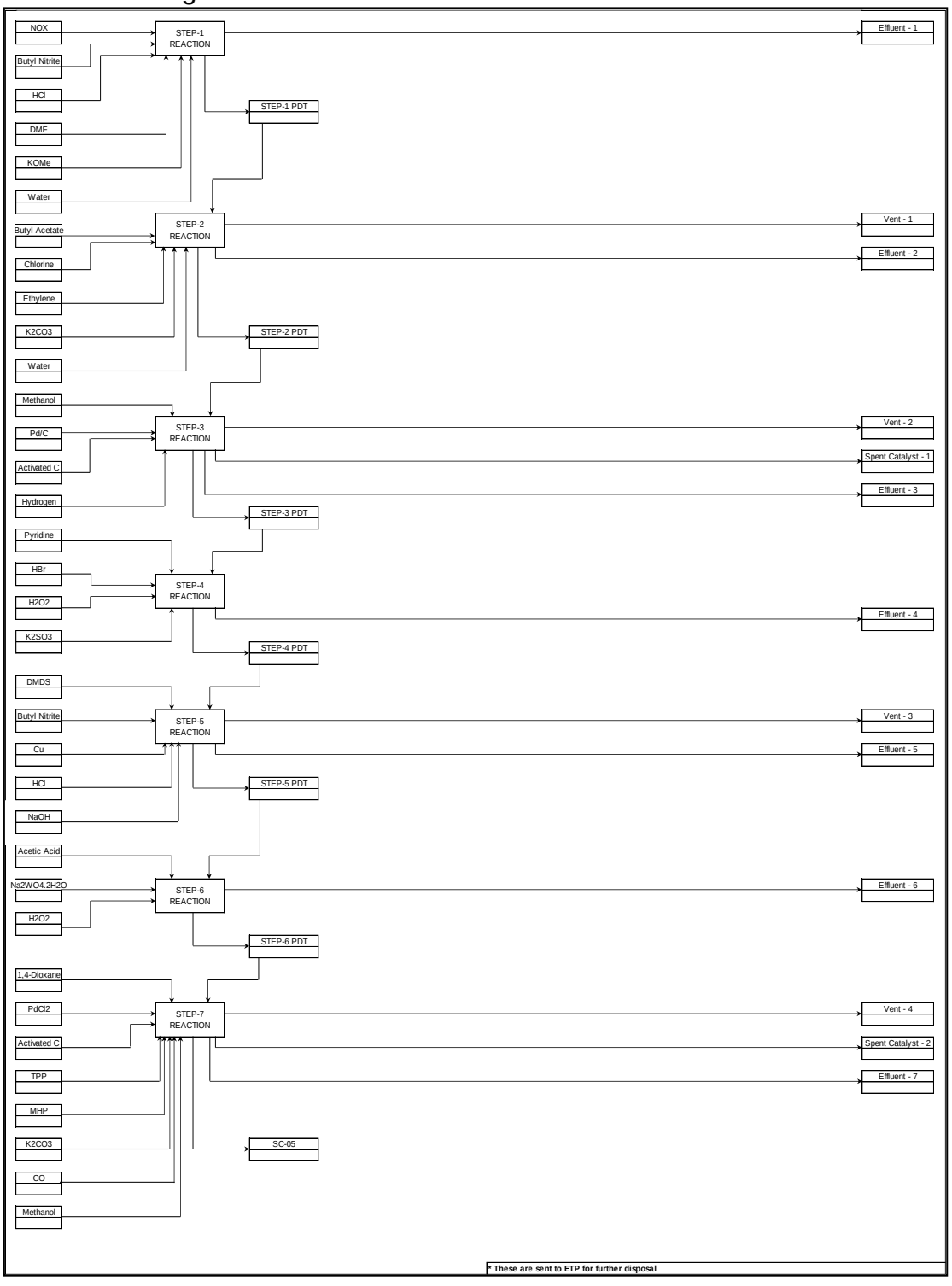
Step 6: The resulting product from step-5 was oxidized using H2O2 (50%) in the presence of Sodium Tungstate as catalyst and Acetic acid as solvent. It will be crystallized by cooling and filtered.

Step 7: Step-6 reacts with MHP, K2CO3 and Carbon monoxide in presence of TPP & PdCl2 as catalyst and 1, 4-dioxane as solvent and activated carbon as filtration media for catalyst removal. After azeotropioc removal of 1, 4-dioxane with water, the salt was hydrolyzed using HCl and purified using methanol. The product will be subsequently filtered and dried before packaging.



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Process Flow Diagram:






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## 9. 2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)benzenamine

Process Description:

2, 5 Dichloro phenol will react with HFP gas in presence of acetonitrile to form DHB---- Step 1 reaction. Crude mass from step-1 undergo distillation to recover solvent and pure DHB was taken for step 2 reaction. In step-2 DHB undergo nitration using nitric acid, in presence of sulfuric acid, to form DHNB----Step 2 reaction. DHNB crude undergo workup followed by distillation to obtain pure DHNB, recovered solvents will be recycled and aqueous effluent will be sent for treatment. DHNB was hydrogenated using Hydrogen gas in presence of catalyst to form DHA. DHA crude will be distilled to obtained pure product and recovered solvents will be recycled for subsequent batches.

Chemical Reaction:

**Step-1**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | KOH/HCl/CH3CN | | | |
| C6H4Cl2O | + | C3F6 | ----------> | C9H4Cl2F6O | | |
| 2,5, Dichloro Phenol | | HFP gas | | DHB | | |
| 163 | | 150 | | 313 | | |

**Step-2**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | H2SO4 | | | |
| C9H4Cl2F6O | + | HNO3 | ----------> | C9H3NO3Cl2F6 | + | H2O |
| DHB | | Nitric acid | | DHNB | | Water |
| 313 | | 63 | | 358 | | 18 |

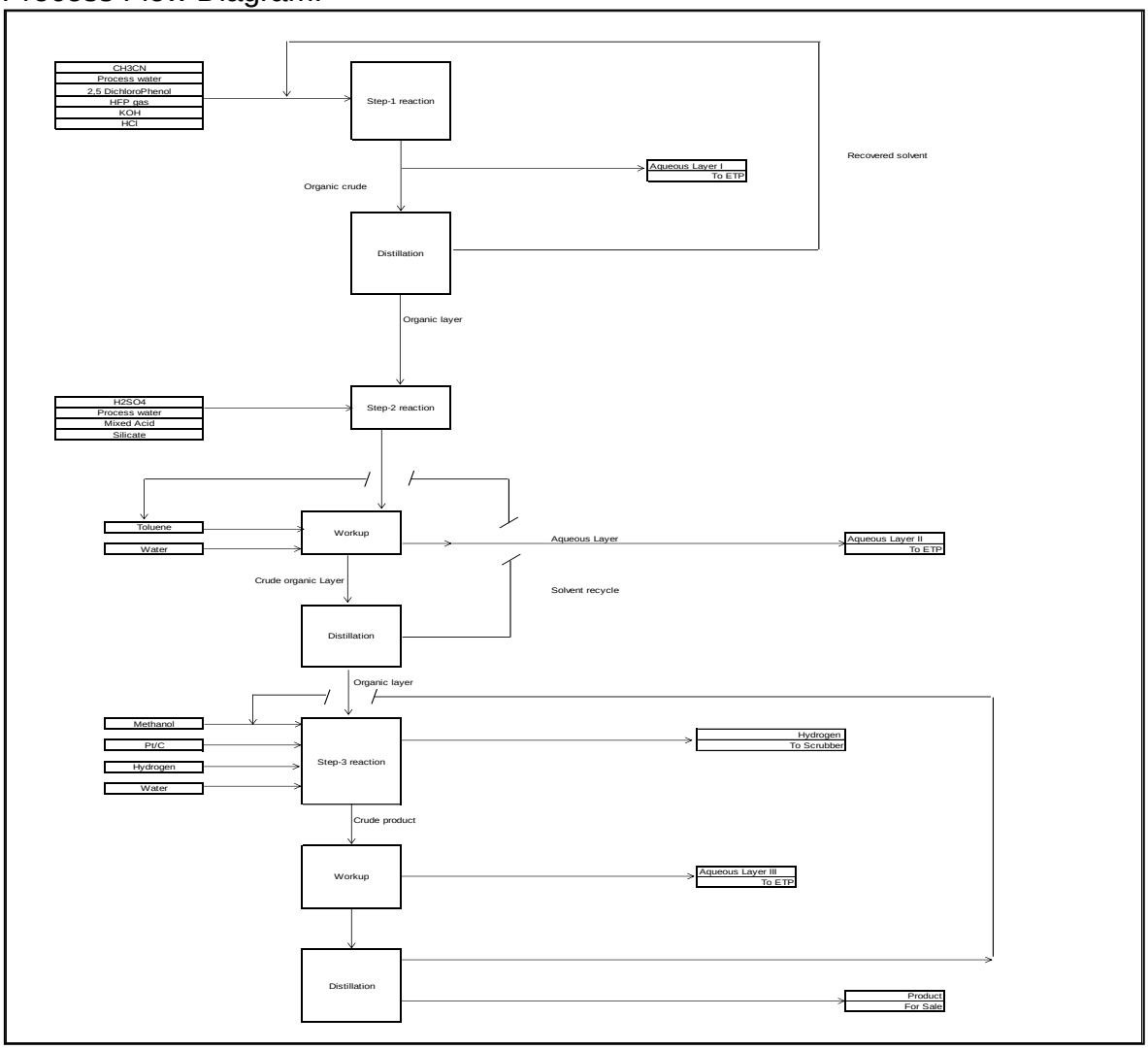
**Step-3**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | CH3OH | | | |
| C9H3NO3Cl2F6 | + | 3H2 | ----------> | C9H5NOCl2F6 | + | 2H2O |
| DHNB | | Hydrogen | | DHNB | | Water |
| 358 | | 6 | | 328 | | 18 |



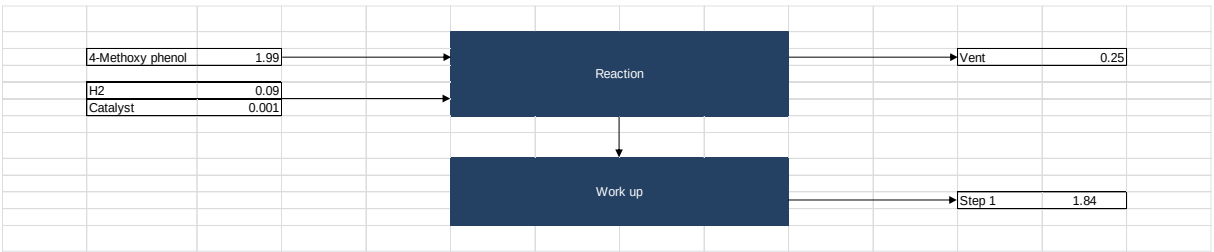
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Process Flow Diagram:



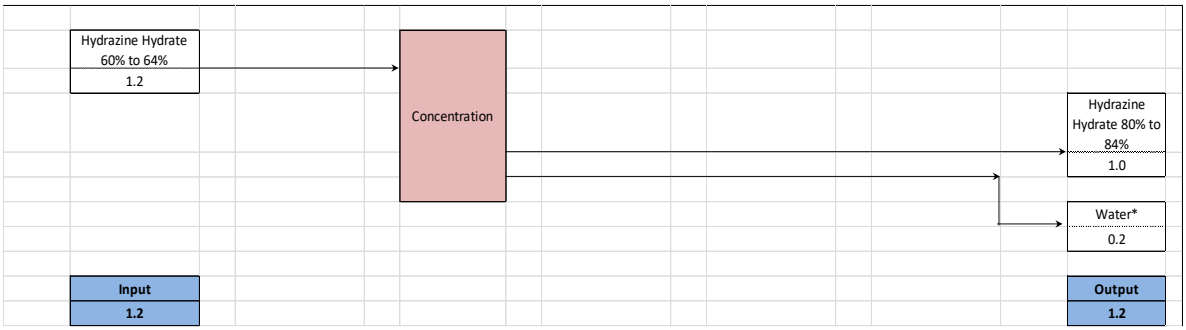

## 10. 4- Methoxycyclohexanone

Process Description:
4 methoxy phenols react with hydrogen, followed by filtration to produce step 1 intermediate
Step 1 reacts with sodium hypochlorite to form 4 MCH crude, this crude further purified to give pure 4-MCH





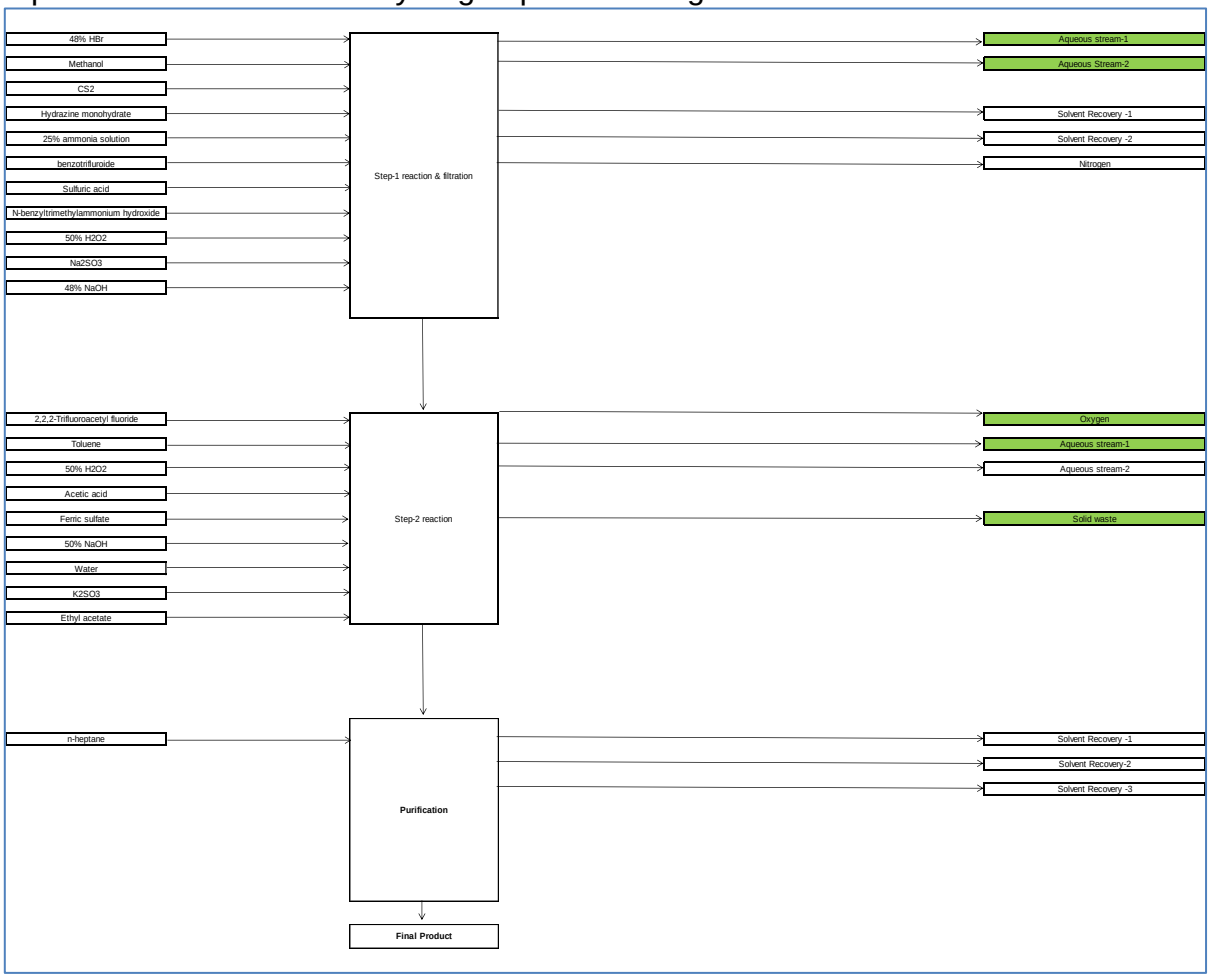

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## 11. 2-(Methylsulfonyl)-5-(trifluoromethyl)-1,3,4-thiadiazole

Process Description:
Methanol, HBr reacts to give Methyl bromide which insitu reacts with CS2, hydrazine and ammonia react to give Step 1

Step 1 reacts with TFA and hydrogen peroxide to give MSTMT






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## 9. Chlorinated Compound

### i. Trichloroethylene / Perchloroethylene

Process Description

Chlorination Section:

In Chlorination section, a reaction between Ethylene dichloride and Chlorine is carried-out in presence of catalyst. The HCl + Organic vapours from reactor are sent to HCl distillation column to recover the organics. The organic product from reactor is distilled to obtain a mixture of Tetra / Penta / Hexa Chloroethanes, which will be sent to cracker section. The distillation top organic liquid is sent as recycle to chlorination reactor. The distillation top HCl + Organics are dried in CaCl2 and sent to HCl distillation for the recovery of organics.

Cracker Section:

The mixture of Tetra / penta / hexa chloroethanes are vaporized and cracked in a process furnace. The high temperature vapours from furnace are routed through a packed bed reactor and the product vapors are condensed and collected. The liquid product is routed to distillation section and HCl vapors are sent to HCl distillation for the recovery of organics.

Distillation Section:

In this section, the cracker product is distilled in a series of 4 columns. The products P11 and P12 are routed to MTF for further storage and sale. Stabilizer is added in the Product. The separated light and heavy organics, consisting of Chlorinated butadiene. The product mixture is washed with Aqueous Ba (OH) 2 solution before separating the P11 and P12 products. The aqueous BaCl2 solution will be sent to ETP for further treatment.

HCl Distillation Section:

In this section, two separate columns are provided to recover the organics from HCl + Organics vapor mixture coming from the process. The recovered organics are recycled back to the process. The HCl vapors are absorbed in process water to prepare 30% HCl solution, which will be sold as product.

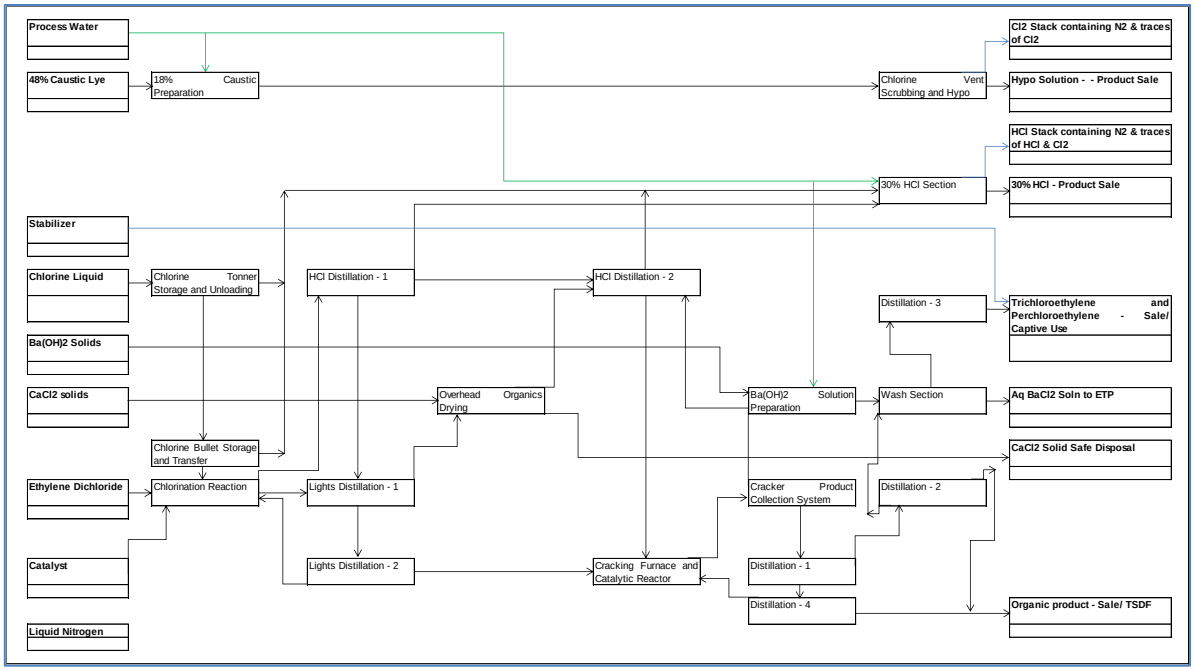
Control System:

Plant is controlled by DCS/PLC from the main control room. Each parameter is continuously monitored, recorded and controlled automatically. Various trips / interlocks are given to handle any kind of emergency. Multiple alarm system has been used to take care of any deviation in terms of operation & safety. The critical pumps are on emergency power supply (UPS). Most of the emergency control actions are remote controlled from control room, rather than manual action in field.

Process Flow Diagram



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## ii. Chloromethanes (CMS Plant)

**Process Description:**

In Chlorination section, main raw materials are: Chlorine and. Reaction takes place in presence of UV rays or thermally or catalytically. At the outlet of reactor, a mixture of C2, C3 and C4 is obtained along with HCL and un-reacted C1. The necessary quantity of 100% HCL is sent to C1 reactor and balance goes for absorption to 33% from the HCL distillation (removal column). This is followed by C1 removal columns. After C1 and HCL removal, the mixture ofC2, C3 and C4 is sent to crude storage. The production of C2/C3/C4 depends on the ratio ofC1 & Cl2 feed in the reactor.

C1 Reactor & C1 Wash Section:

In C1 section, main raw materials are: Methanol and 100% HCL (From chlorination section). The reaction takes place in the presence of catalyst. C1 (Methyl Chloride) is formed which after purification (removal of acidity, free chlorine & moisture, etc.) and compression is sent to storage.

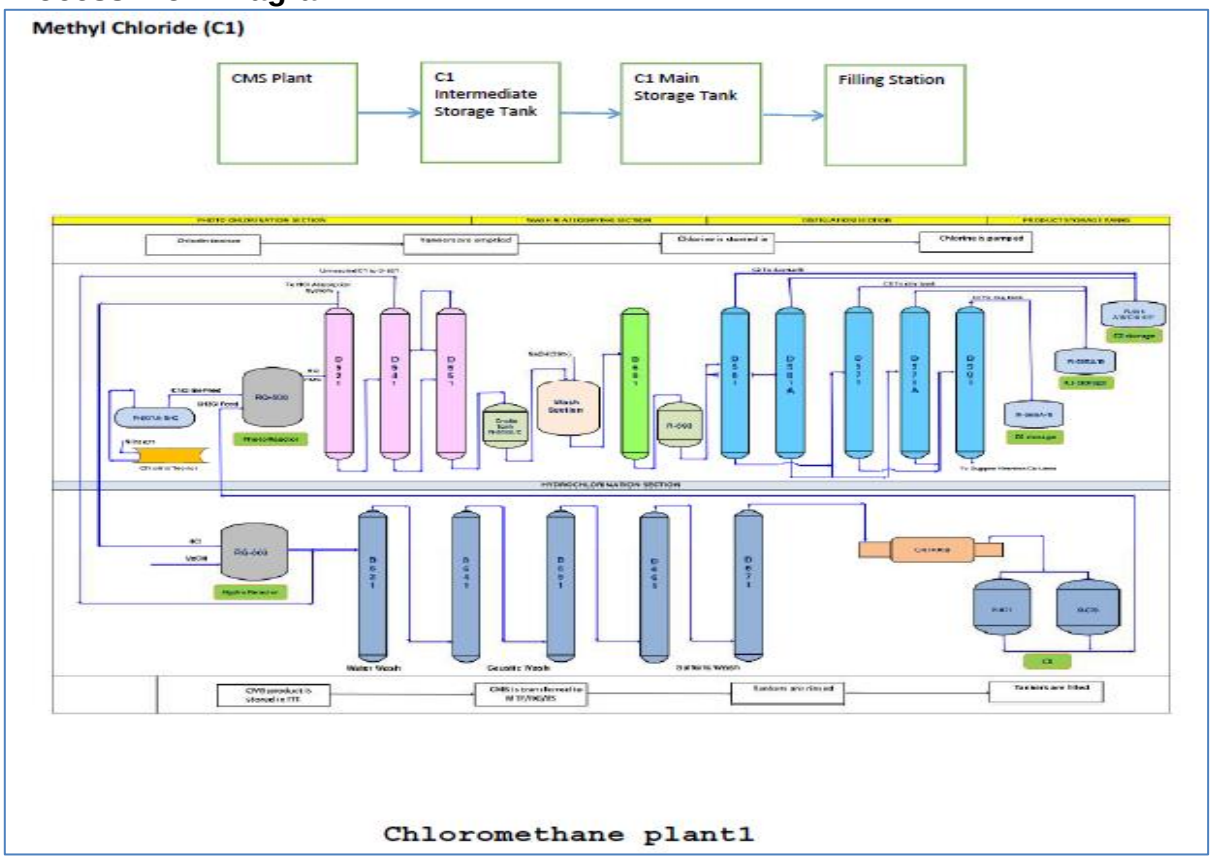
Wash & Distillation Section:

In this section, crude CMS is treated for removal of residual acidity and moisture (drying). The dried CMS is fed to distillation train for C2, C3 and C4 production. CMS plant is controlled by DCS/PLC from the main control room. Each parameter is continuously monitored, recorded and controlled automatically. Various trips / interlocks are given to handle any kind of emergency. Multiple alarm system has been used to take care of any deviation in terms of operation & safety. The critical pumps are on emergency power supply (UPS). Most of the emergency control actions are remote controlled from control room, rather than manual action in field.



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**Process Flow Diagram:**




## 10. Anhydrous Hydrofluoric Acid

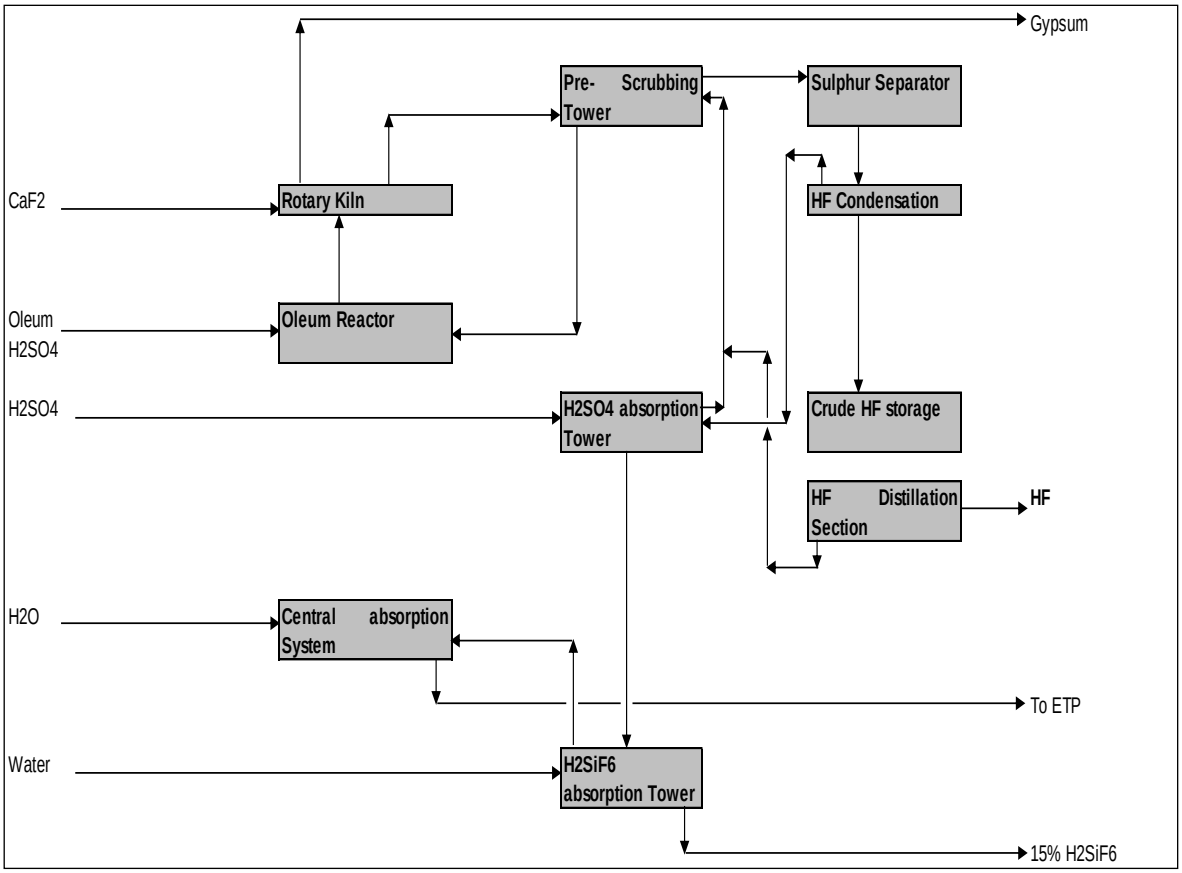
Process Description

HF is produced in an indirectly heated rotary reactor (kiln) under small vacuum by the reaction of Sulfuric acid & dried Fluorspar. Oleum is used to convert the moisture into H2SO4. Crude HF thus produced, is distilled in Distillation Columns to produce pure HF.

Process Flow Diagram



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## 11. HFC Refrigerant

### i. 1,1,1,2- Tetrafluoromethane ( HFC 134a )

Process Description:
Trichloroethylene (TCE) is reacted with Hydrofluoric Acid in presence of Catalyst to produce R 133a. R 133a is then reacted with HF in another Reactor in presence of Catalyst to produce R 134a. HCl produced is separated from R 134a.
R134a thus produced is sent to the wash section & distilled to get the pure product.
Chemical Reaction:

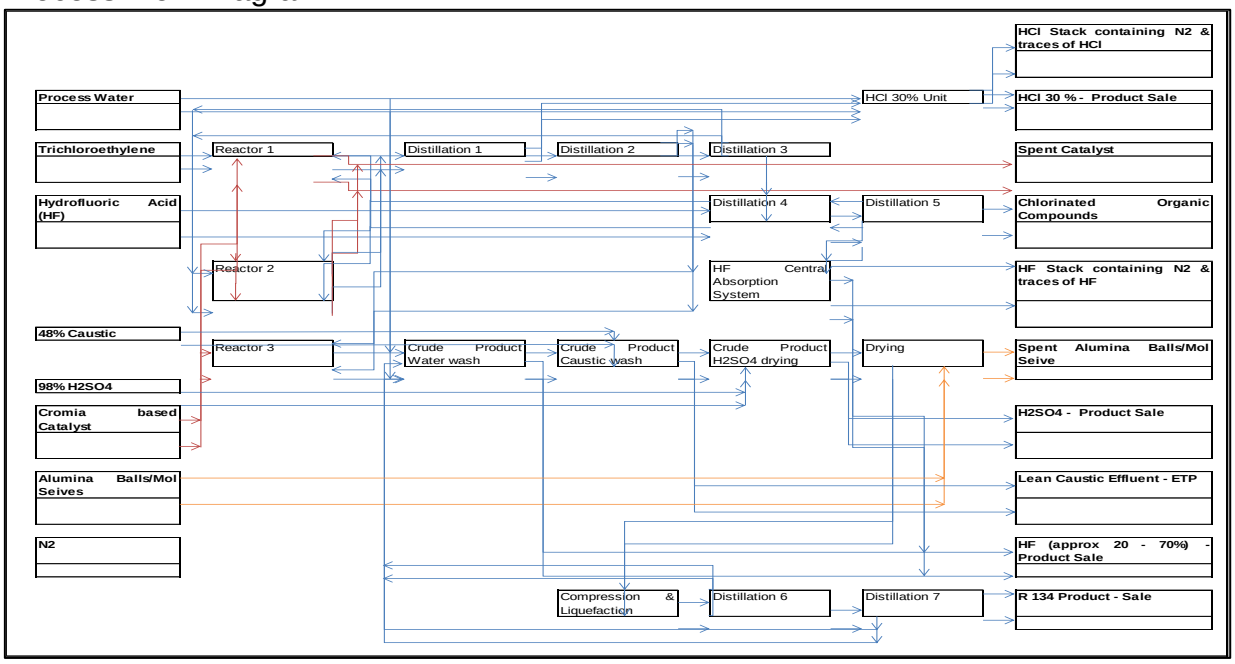
| | | | | | | |
|---|---|---|---|---|---|---|
| C2HCl3 | + | 3HF | = | CF3CH2Cl | + | 2HCl |
| 131.388 | | 60.019 | | 118.485 | | 72.922 |

| | | | | | | |
|---|---|---|---|---|---|---|
| CF3CH2Cl | + | HF | = | CH2FCF3 | + | HCl |
| 118.485 | | 20.006 | | 102.031 | | 36.461 |



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Process Flow Diagram:

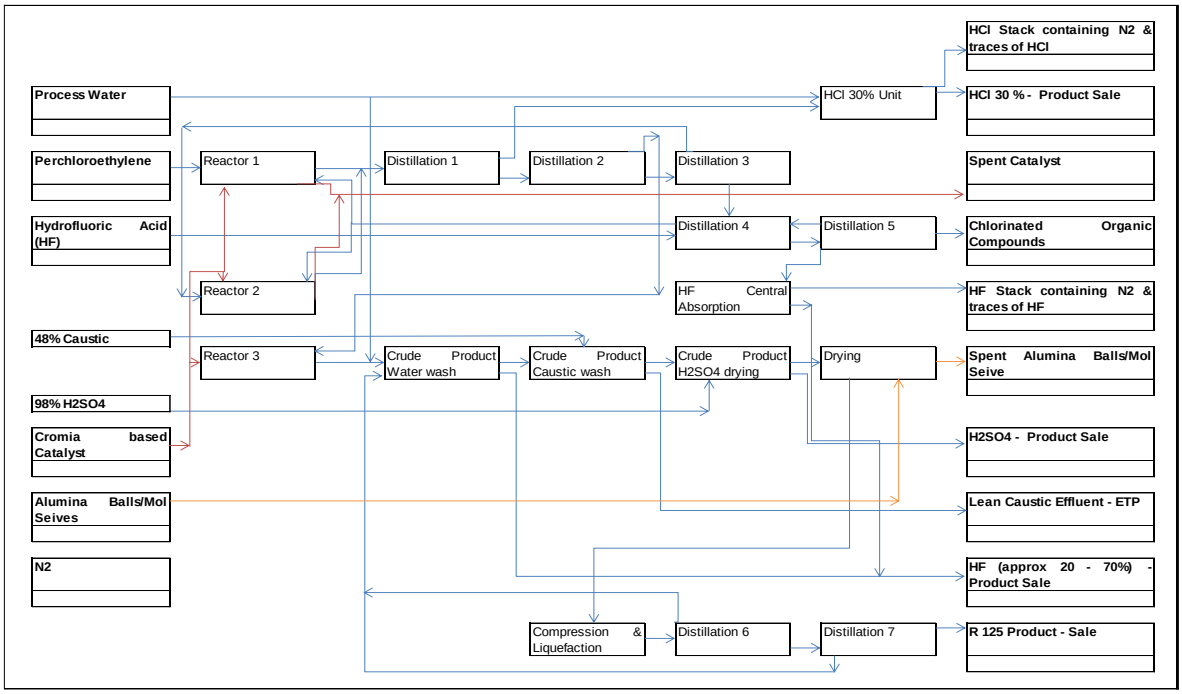



## ii. Pentafluoroethane (HFC 125)

Process Description:

Perchloroethylene (PCE) is reacted with Hydrofluoric Acid in presence of Catalyst to produce R 123. R 123 is then reacted with HF in another Reactor in presence of Catalyst to produce R 125. HCl produced is separated from R 125.

R125 thus produced is sent to the wash section & distilled to get the pure product.



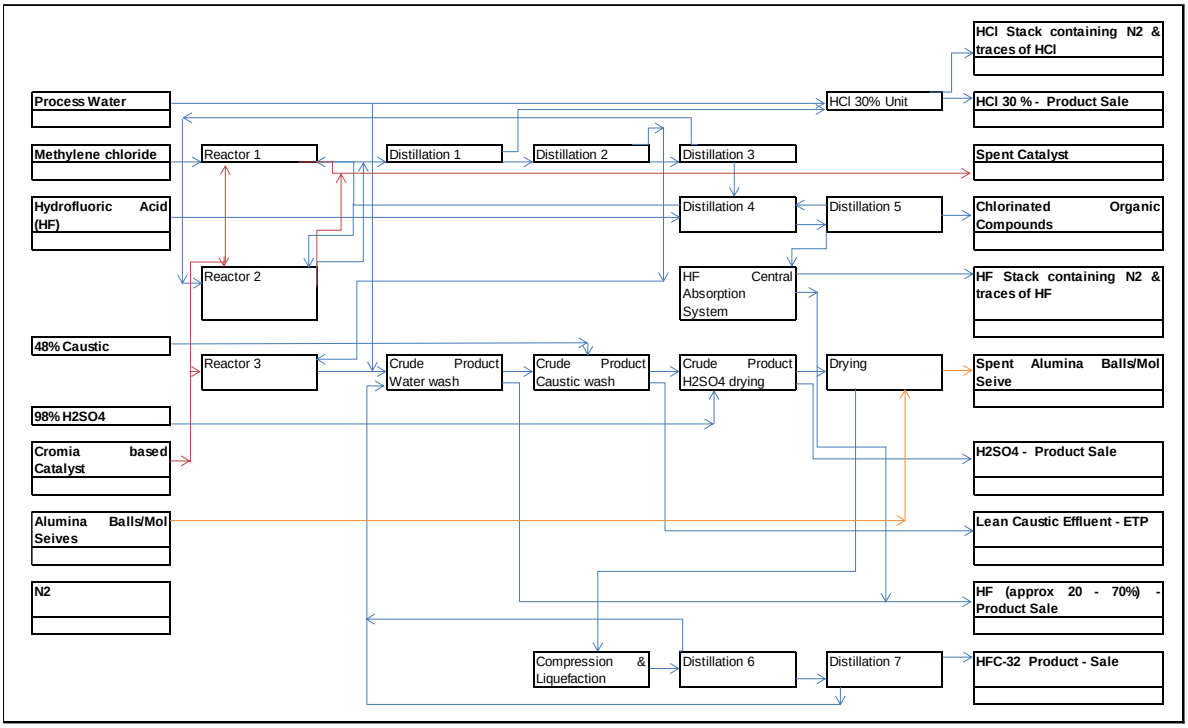



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### iii. Difluoromethane (HFC - 32 )

Process Description:

Methylene chloride will react with Hydrofluoric Acid in presence of Catalyst to produce Difluoromethane (HFC - 32).

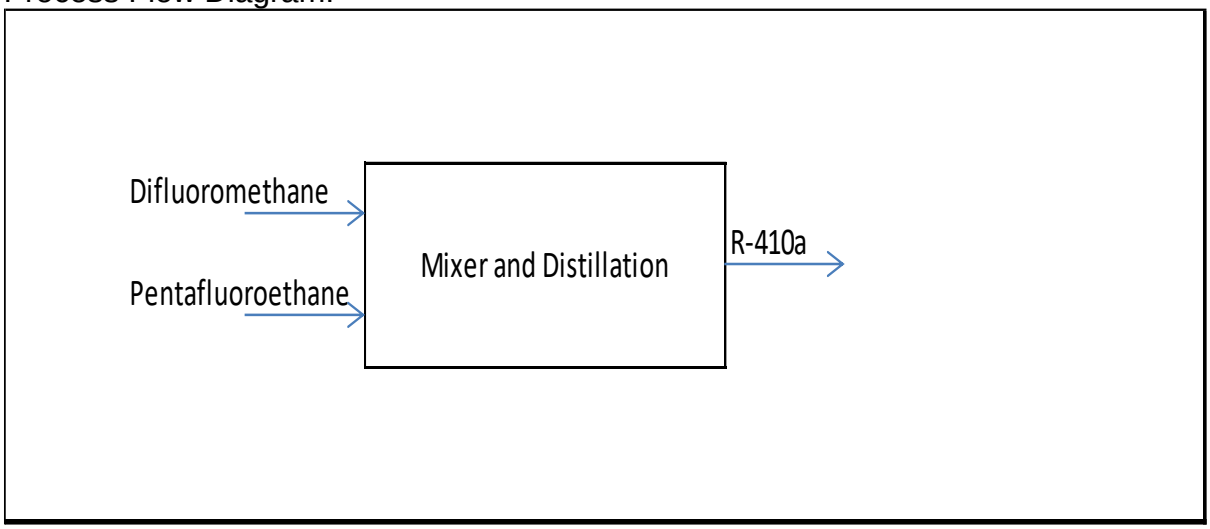



### iv. Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a)

Process Description:

In the process of R-410a, mixture of Difluoromethane (CH2F2, called R-32) and Pentafluoroethane (CHF2CF3, called R-125) and to get R-410a.

Process Flow Diagram:






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## 12. Hydrofluoric Acid 20 - 70%

Process Description:
HF gas will generate as product gas which will be absorbed in water to generate 20-70% HF solution. It shall be sold as product.

## 13. Anhydrous Hydrochloric Acid

Process Description:
In the process for production of CMS, we get HCl from HCl column D-521, which is used for refining the HCl coming from the vent of its reactor, at the pressure of 9.5 barg, temperature of -30 degC. HCl column have its top partial condenser E-522 receiving overhead vapors from column. The condensate of the exchanger is sent as reflux to the Column. Vent of the condenser is sent to the 33% HCl Elberger SectionE-701 which Contains Chlorine, Methanol and C1 impurities in it. A side HCl vapor stream is taken from the Vent line of D-521 Column which will be further Purified, transferred, stored and filled in cylinders.

## 14. Chlorodifluoromethane (R22)

Process Description:
Hydrofluoric Acid reacts with Chloroform (C3) in presence of catalyst to produce HFC-22, AHCl, Unreacted HF. In Crude Distillation section HCl and HFC-22 separated from top and unreacted Hydrofluoric acid and moisture separated. HCl will be absorbed in Absorption section to produce 30-33% Dilute Hydrochloric acid. HFC-22 gas washed with NaOH and Sulphuric acid to remove moisture and acidity and then compressed fed to Product distillation section where HFC-22 will be separated and stored.The R22 produced is primarily used as a feedstock

Chemical Reaction:

| **Chemical Name** | | C3 | | AHF | | R22 | | HCl |
|---|---|---|---|---|---|---|---|---|
| **Reaction** | | **CHCl3** | **+** | **2HF** | ⟶ | **CHClF2** | **+** | **2HCl** |
| MW | g/mol | 119.378 | | 20.006 | | 86.468 | | 36.461 |

## 15. Calcium Chloride

Process Description:
31% HCl added with Limestone in the reaction section in which reacts to produce Calcium chloride and Carbon dioxide gas. The Calcium chloride solution is neutralized in neutralization section by adding slaked lime and clarified in Clarifier with addition of flocculant. Clarified Calcium chloride solution is then filtered through sand filter and stored as 33.5% Calcium Chloride solution. The Carbon dioxide gas is scrubbed in vent scrubber and released to atmosphere as CO2 gas. The cake from the clarified is filtered in the filter press to recover calcium chloride solution which is recycled and solid sludge is separated and disposed as solid waste



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# ANNEXURE-9

## DETAILS OF MONTH WISE WATER CONSUMPTION

| Water Consumption | | | |
|---|---|---|---|
| **Month** | **Initial Reading** | **Final Reading** | **DIFF** |
| **Apr-23** | 249316 | 563614 | 314298 |
| **May-23** | 563614 | 872236 | 308622 |
| **Jun-23** | 872236 | 1175291 | 303055 |
| **Jul-23** | 1175291 | 1444113 | 268822 |
| **Aug-23** | 1444113 | 181380 | 250677 |
| **Sep-23** | 181380 | 421161 | 239781 |
| **Oct-23** | 421161 | 696900 | 275739 |
| **Nov-23** | 696900 | 981800 | 284900 |
| **Dec-23** | 981800 | 1253136 | 271336 |
| **Jan-24** | 1253136 | 1551110 | 297974 |
| **Feb-24** | 1551110 | 1833852 | 282742 |
| **Mar-24** | 1833852 | 2134830 | 300978 |
| **Total** | **11223909** | **13109423** | **3398924** |
| **Average Consumption KL per Day** | | | **9292** |

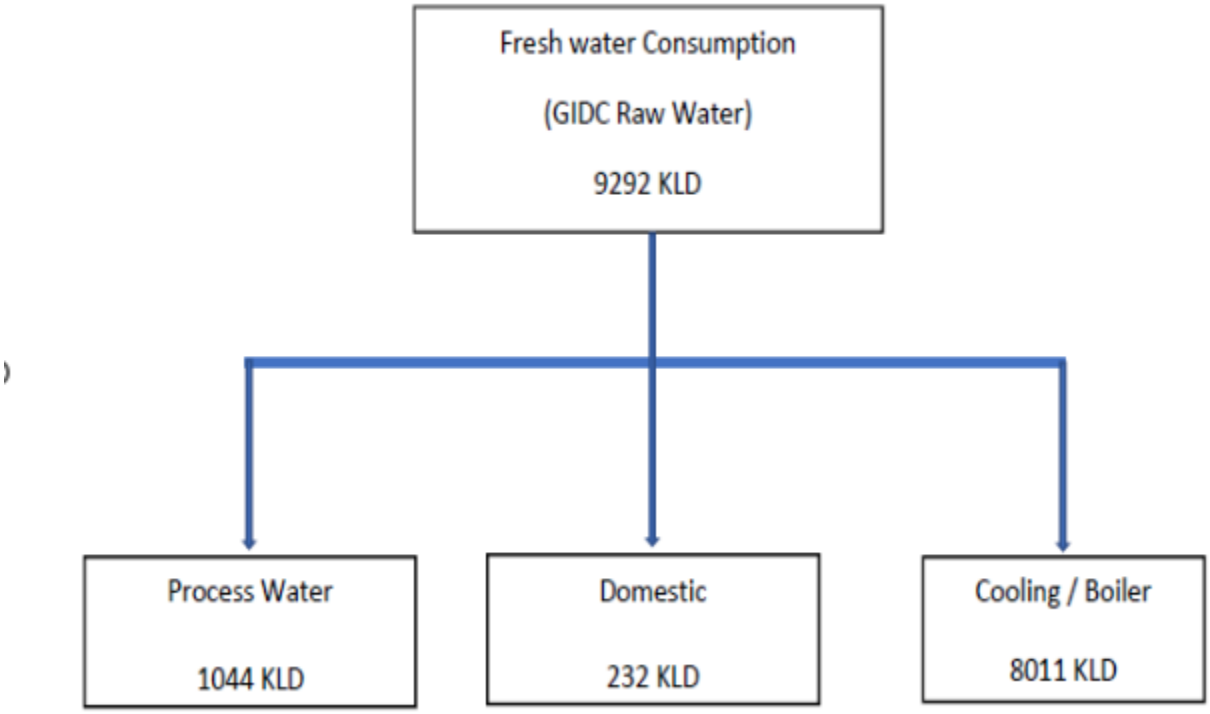
## COMPARATIVE STATEMENT OF WATER CONSUMPTION

| Year | Water Consumption | Production | Water Consumption per MT of Production |
|---|---|---|---|
| | **KL** | **MT** | **KL** |
| Financial Year 2021-22 | 2740700 | 181475 | 15.1 |
| Financial Year 2022-23 | 3354738 | 245581 | 13.7 |
| **Financial Year 2023-24** | **3398924** | **337096** | **10.1** |



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## WATER BALANCE DIAGRAM






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# ANNEXURE – 10

## MONTHWISE WASTEWATER GENERATION

| Wastewater Discharge | | | |
|---|---|---|---|
| **Month** | **IR** | **FR** | **DIFF** |
| **Apr-23** | 2526892 | 2582687 | 55795 |
| **May-23** | 2582687 | 2628315 | 45628 |
| **Jun-23** | 2628315 | 2678408 | 50093 |
| **Jul-23** | 2678408 | 2734871 | 56463 |
| **Aug-23** | 2734871 | 2791762 | 56891 |
| **Sep-23** | 2791762 | 2834769 | 43007 |
| **Oct-23** | 2834769 | 2872830 | 38061 |
| **Nov-23** | 2872830 | 2915145 | 42315 |
| **Dec-23** | 2915145 | 2959904 | 44759 |
| **Jan-24** | 2959904 | 3010379 | 50475 |
| **Feb-24** | 3010379 | 3056381 | 46002 |
| **Mar-24** | 3056381 | 3095098 | 38717 |
| **Total** | **33592343** | **34160549** | **568206** |
| **Average Discharge KL per Day** | | | **1553** |

## COMPARATIVE STATEMENT OF WATER CONSUMPTION

| Year | Waste water discharge | Production | Waste Water Discharge per MT of Production |
|---|---|---|---|
| | **KL** | **MT** | **KL** |
| Financial Year 2021-22 | 531866 | 181475 | 2.9 |
| Financial Year 2022-23 | 659453 | 245581 | 2.7 |
| **Financial Year 2023-24** | **568206** | **337096** | **1.7** |



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# ANNEXURE – 11

## MONTHWISE WASTEWATER GENERATION

| Month | MEE Feed | ETP feed | UF Feed | DMF Feed | TOTAL |
|---|---|---|---|---|---|
| Apr-23 | 16794 | 31400 | 75985 | 65887 | 190066 |
| May-23 | 16725 | 31296 | 72067 | 60538 | 180626 |
| Jun-23 | 16004 | 28302 | 58551 | 58616 | 161473 |
| Jul-23 | 16859 | 29052 | 57565 | 58767 | 162243 |
| Aug-23 | 16544 | 27813 | 58111 | 65754 | 168222 |
| Sep-23 | 17197 | 28552 | 48483 | 52975 | 147207 |
| Oct-23 | 16572 | 27641 | 51858 | 57260 | 153331 |
| Nov-23 | 16647 | 28401 | 69046 | 75833 | 189927 |
| Dec-23 | 19084 | 32763 | 86004 | 94194 | 232045 |
| Jan-24 | 19537 | 33599 | 83506 | 93080 | 229722 |
| Feb-24 | 18078 | 31664 | 86328 | 100004 | 236074 |
| Mar-24 | 15115 | 33349 | 83639 | 98085 | 230188 |
| **Total (KL)** | 205156 | 363832 | 831143 | 880993 | 2281124 |
| **Avg./Month (KL)** | **17096.33** | **30319.33** | **69261.92** | **73416.08** | **190093.67** |



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# ANNEXURE – 12

# DETAILS OF EFFLUENT TREATMENT WITH PROCESS, CAPACITY OF UNITS & FLOW DIAGRAM

**ETP Treatment Plant scheme**

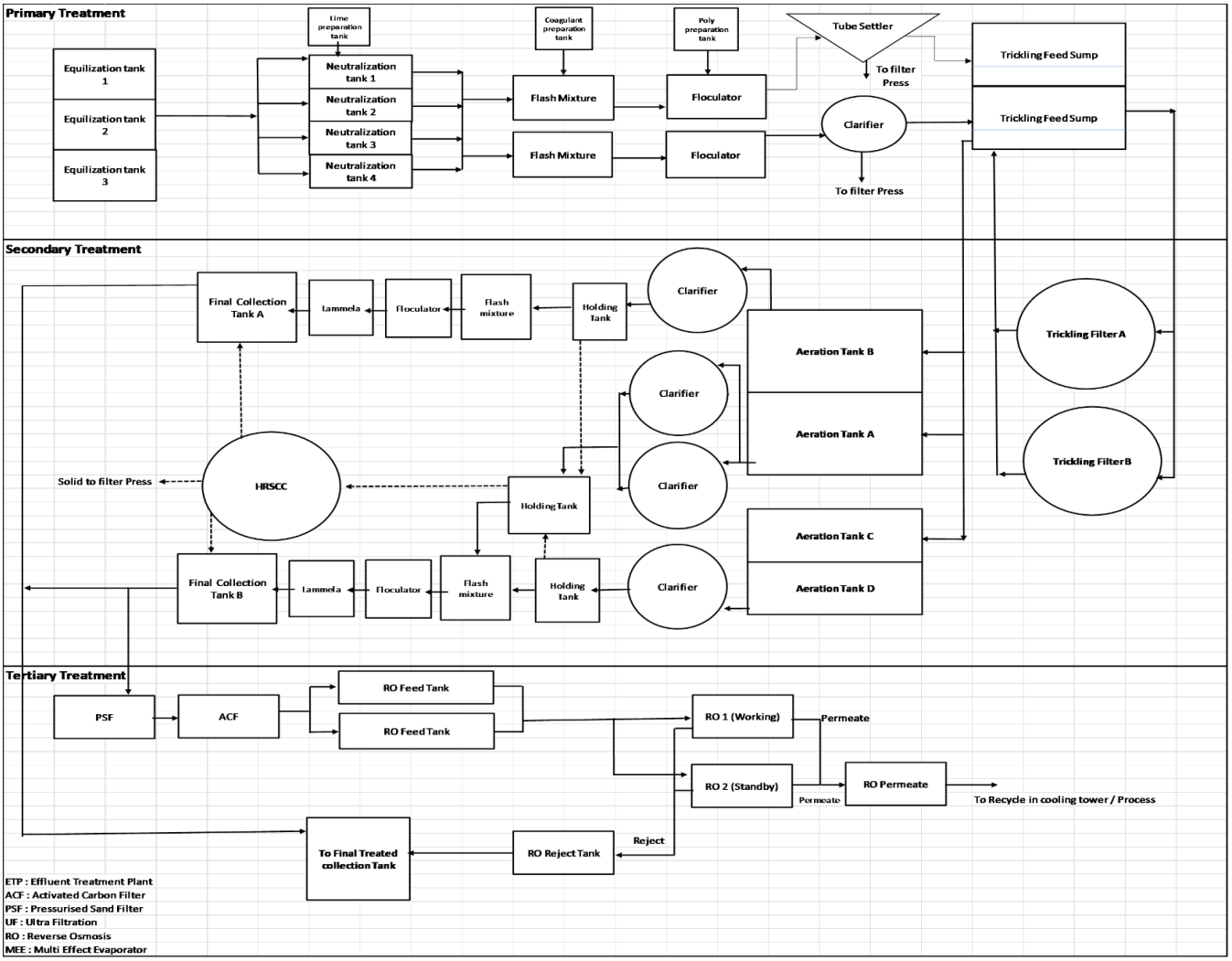
**EFFLUENT TREATMENT PLANT (ETP):**

Unit has installed a proposed ETP set same as that of the existing capacity to handle the proposed additional effluent. The existing domestic and industrial effluent treatment plant shall be treated with four different streams as following:

1. Low TDS with Low Organic effluent stream
2. High TDS with High Organic effluent stream
3. Utility Effluent stream generated by cooling tower and boiler blowdown.
4. Domestic effluent stream

## 1. TREATMENT SCHEME FOR LOW TDS WITH LOW ORGANIC EFFLUENT STREAM:

**Schematic Diagram of Low TDS with Low organic Effluent Treatment Plant:**






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**DETAILS OF UNIT SIZE OF LOW TDS WITH LOW ORGANIC EFFLUENT STREAM:**

| Sr. No. | Treatment Unit | No. of Unit | Size of Unit | | | | Capacity (cum) | | Design Parameter – Retention Time | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | L | B | TD | LD | Hydraulic | Total | UoM | Actual | Recommended | Remarks |
| 1 | Equalization tank | 1 | 12 | 12 | 3.8 | 3.5 | 504 | 547 | hour | 12 | 8 to 24 | Adequate |
| 2 | Equalization tank (Proposed) | 1 | 11.8 | 6.75 | 3.8 | 3.5 | 279 | 303 | hour | | | Adequate |
| 3 | Equalization tank (Proposed) | 1 | 9.6 | 5.5 | 6.3 | 6 | 317 | 333 | hour | | | Adequate |
| 4 | Neutralization tank | 2 | 9.1 | 9.1 | 3.3 | 3 | 497 | 547 | hour | 10.8 | 6 to 12 | Adequate |
| 5 | Neutralization tank (Proposed) | 1 | 9.1 | 6.5 | 3.8 | 3 | 177 | 225 | hour | | | Adequate |
| 6 | Neutralization tank (Proposed) | 1 | 9.6 | 5.5 | 6.3 | 6 | 317 | 333 | hour | | | Adequate |
| 7 | Flash mixer | 2 | 1.9 | 1.9 | 2.3 | 2 | 14 | 16 | --- | 0.15 | ---- | Adequate |
| 8 | Flocculator | 2 | 2.3 | 2.3 | 2.3 | 2 | 22 | 24 | --- | 0.24 | ---- | Adequate |
| 9 | Tube settler | 1 | 4 | 4 | 5.3 | 5.2 | 83 | 85 | hour | 5.88 | 1 to 4 | Adequate |
| 10 | Primary Clarifier (Proposed) | 1 | 10 | 10 | 3.8 | 3.5 | 275 | 298 | hour | | | Adequate |
| 11 | Feed sump - Trickling | 1 | 9 | 9 | 3.5 | 3 | 243 | 284 | --- | | | Adequate |
| 12 | Feed sump – Trickling (Proposed) | 1 | 9.1 | 7 | 4 | 3.5 | 223 | 255 | --- | --- | ---- | Adequate |
| 13 | Aeration tank | 3 | 21 | 21 | 5.2 | 4.7 | 6218 | 6880 | hour | 67.83 | 48 | Adequate |
| 14 | Holding tank | 1 | 6.5 | 6.5 | 3.3 | 3 | 127 | 139 | --- | 1.39 | ---- | Adequate |
| 15 | Flocculator | 1 | 2.1 | 2.1 | 2.8 | 2.5 | 11 | 12 | --- | 0.12 | ---- | Adequate |
| 16 | Tube settler | 1 | 4.5 | 4.5 | 5.5 | 5.4 | 109 | 111 | hour | 1.19 | 1 to 4 | Adequate |
| 17 | Final collection tank | 1 | 12 | 12 | 3.8 | 3.5 | 504 | 547 | hour | 69.1 | 48 | Adequate |



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| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | Final collection tank (Proposed) | 1 | 21.94 | 6.65 | 6.25 | 6.1 | 890 | 912 | hour | | | Adequate |
| 19 | Guard tank | 1 | 21 | 21 | 5.2 | 4.7 | 2073 | 2293 | --- | | | Adequate |
| 20 | Guard tank | 1 | 21 | 21 | 7 | 6.5 | 2867 | 3087 | --- | | | Adequate |
| 21 | Sludge tank | 1 | 10 | 4 | 3 | 2.7 | 108 | 120 | --- | 1.18 | ---- | Adequate |
| 22 | Leachate tank | 1 | 3.2 | 3 | 2 | 1.7 | 16 | 19 | --- | 0.18 | ---- | Adequate |
| 23 | HRSCC (Proposed) | 1 | 12 | 12 | 3.8 | 3.5 | 396 | 430 | --- | 4.32 | ---- | Adequate |
| **ROUND TANK** | | | | | | | | | **Design Parameter - VOR** | | | |
| 1 | Trickling filter | 2 | 14 | --- | 7.6 | 7.3 | 2246.4 | 2338.7 | Kg/cu m.d | 0.44 | ---- | Adequate |
| 2 | Sec. Clarifier | 2 | 4.8 | --- | 2.8 | 2.5 | 90.4 | 101.3 | hour | 1.99 | 1 to 4 | Adequate |
| | | 1 | 7 | --- | 2.7 | 2.4 | 92.3 | 103.9 | | | | Adequate |
| **DESIGN PARAMETER – HOLD UP VOLUME** | | | | | | | | | | | | |
| 1 | Acid dosing tank | 1 | 0.8 | --- | 1.1 | 1 | 0.5 | 0.6 | --- | 0.055 | ---- | Adequate |
| 2 | Alkali dosing tank | 1 | 0.8 | --- | 1.1 | 1 | 0.5 | 0.6 | --- | 0.055 | ---- | Adequate |
| 3 | Lime slurry prp. Tank | 1 | 0.8 | --- | 1.1 | 1 | 0.5 | 0.6 | --- | 0.055 | ---- | Adequate |
| 4 | MGO slurry prp. Tank | 1 | 0.8 | --- | 1.1 | 1 | 0.5 | 0.6 | --- | 0.055 | ---- | Adequate |
| 5 | Na2CO3 prp. Tank | 1 | 0.8 | --- | 1.1 | 1 | 0.5 | 0.6 | --- | 0.055 | ---- | Adequate |
| 6 | Flocculant prp. Tank | 1 | 0.8 | --- | 1.1 | 1 | 0.5 | 0.6 | --- | 0.055 | ---- | Adequate |

## STAGE WISE EFFLUENT CHARACTERISTICS DETAILS:

| Parameter | Unit | Inlet effluent quality | Physio-chemical Treatment | Secondary treated quality followed by Bio Tower | Secondary treated quality followed by Activated Sludge Process | Tertiary treated quality | Final treated quality |
|---|---|---|---|---|---|---|---|
| pH | - | 04 to 11 | 9 to 10 | 7.5 to 8.5 | 7 to 7.5 | 7 to 7.5 | 7 to 7.5 |
| TSS | mg/L | 1000 | < 100 | < 100 | < 100 | < 100 | < 100 |
| TDS | mg/L | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| NH4-N | mg/L | 500 | 400 | 40 | 20 | 20 | 20 |
| BOD | mg/L | 4000 | 4000 | 1800 | 90 | 90 | 90 |



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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| COD | mg/L | 5000 | 4000 | <2000 | <500 | <400 | <250 |
| Fluoride | mg/L | < 50 | < 10 | < 10 | < 10 | < 10 | < 10 |

Low tds with low organic effluent treatment plant has been established for treatment of cod less than 5000 mg/l, tds less than 3000 mg/l, fluoride < 50 mg/l and for heavy metals like antimony, zinc, nickel, copper, barium, lead and iron with combine physio-chemical, anaerobic and aerobic biological process, and tertiary treatment system. The collected influent is equalized in collection by continuous air diffusion system.

Equalization
Influent coming from different plant pits is collected in equalization tank. Through equalization ph is stabilized and chemical requirements are minimized for neutralization.

Physio-chemical treatment
Hydroxide and sulphide treatment shall be provided for removal of heavy metals and fluoride. For this process hydrated lime and ferrous sulphate dosed for removal of suspended solid, fluoride and heavy metals. In this system calcium shall react with fluorides, hydroxide (oh-) & sulphate shall react with heavy metals.

Flash mixer
The colloidal particles present in effluent require coagulation for flocs to agglomerate. In flash mixer, the coagulants viz., non-ferric alum or pac, shall be added under rapid mixing.

Flocculator
The coagulated effluent shall be then fed to flocculator where polyelectrolyte shall be added under slow mixing for formation of flocs readily settle able.

Sedimentation process
In tube settler, suspended solids, calcium fluoride (caf) and heavy metals are removal by sedimentation through primary tube settler. Settled solid (suspended solid, calcium fluoride and metal hydroxide or sulphide) shall be sent to filter press for dewatering. The ss free supernatant shall be collected and sent to the equalization tank.

Bio tower
A bio tower operates by having the wastewater fall through a packed bed tower filled with permeable packing. The packing has both aerobic and anaerobic microorganisms growing on it. The bio tower shall be operated with recycling. Bio towers use stationary filter media for the treatment of wastewater.
The following are several steps that are often considered to improve nitrification:
The fixed film reactor and activated sludge process shall be run in series. This will allow most of the bod removal to occur in the first stage and improved nitrification to occur in the second stage.
The amount of ventilation and hydraulic recirculation is increased and shall be operated by 10 times recycling of feed rate. This will allow nitrifying bacteria to operate at increased growth rates.
Hydraulic dosing shall be increased by high recirculation rates. Shearing off of excessive bio-growth shall allow enhanced ventilation and promote new growth for added nutrient removal.

Activated sludge process
In activated sludge process wastewater containing organic matter is aerated in an aeration basin in which micro-organisms metabolize the suspended and soluble organic matter. Part of organic matter is synthesized into new cells and part is oxidized to co2 and water to derive energy. In activated sludge systems the new cells formed in the reaction are removed from the liquid stream in the form of a flocculent sludge in secondary settling tanks. A part of this settled biomass, described as activated sludge is returned to the aeration tank and the remaining forms waste or excess sludge.


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Physio-chemical treatment
The supernatant from asp shall be then fed to flocculator where pac / sodium hypochlorite shall be added under slow mixing for formation of flocs and destruction of micro-organisms.

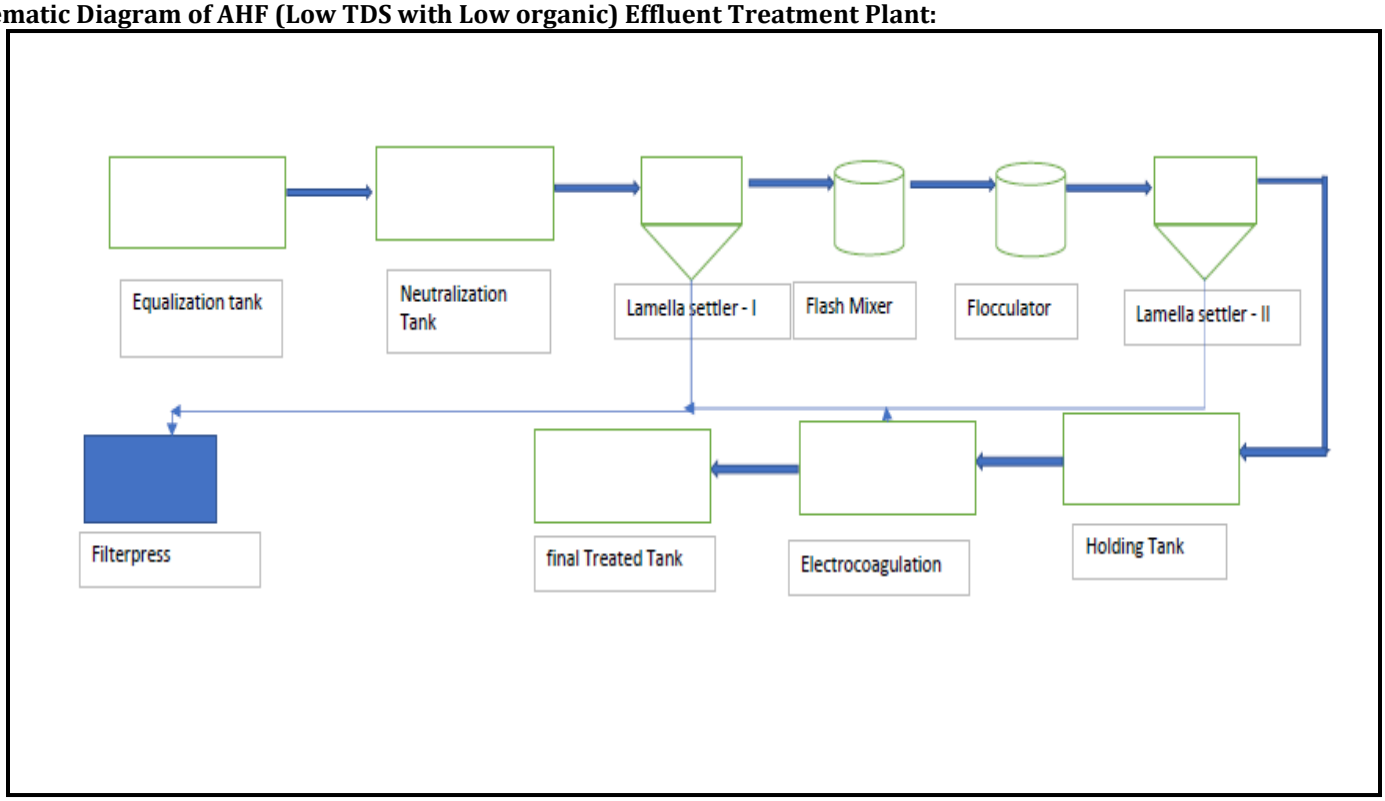
Sedimentation
The treated effluent shall be then fed to tube settler for tertiary ss removal.

Sludge decanting and dewatering
The primary sludge from primary tube settler and biological sludge from activated sludge process shall be collected in the sludge holding tank, and then fed into the filter press or decanter for dewatering. Leachate shall be transferred to the equalization tank and the dewatered sludge shall be stored in impervious designated area.

The dewatered calcium fluoride and metal content sludge shall be sent to secured landfill site or shall be sold to actual users by confirming of the heavy metal content.

## (A) TREATMENT SCHEME FOR AHF PLANT EFFLUENT (Low TDS with Low organic):

**Schematic Diagram of AHF (Low TDS with Low organic) Effluent Treatment Plant:**






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**DETAILS OF UNIT SIZE OF AHF EFFLUENT STREAM:**

| Sr no | Treatment Unit | No. of Unit | Size of Unit | | | | Capacity (cum) | | Design Parameter – Retention Time | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | L | B | TD | LD | Hydraulic | Total | UoM | Actual | Recommended | |
| 1 | Equalization tank | 1 | 10.5 | 10.5 | 3.8 | Adequate | 386 | 419 | Hour | 20.6 | 8 to 24 | Adequate |
| 2 | Neutralization tank | 2 | 5.7 | 5.7 | 3 | 2.7 | 175 | 195 | Hour | 9.4 | 6 to 12 | Adequate |
| 3 | Flash mixer | 1 | 1.8 | ------ | 2.3 | 2 | 5.1 | 5.8 | Min. | 16.3 | 10 to 20 | Adequate |
| 4 | Flocculator | 1 | 2 | ------ | 2.3 | 2 | 6.3 | 7.2 | Min. | 20.1 | 20 to 30 | Adequate |
| 5 | Tube settler - 1 | 1 | 3 | 3 | 3.5 | 3.4 | 31 | 32 | Min. | 97.9 | 30 to 150 | Adequate |
| 6 | Holding tank | 1 | 5.5 | 5.5 | 3 | 2.7 | 82 | 91 | - | 4.4 | - | Adequate |
| 7 | Electro coagulation* | 1 | ----- | ----- | ---- | ---- | ---- | ----- | ----- | - | - | Adequate |
| 8 | Tube settler - 2 | 1 | 2.8 | 2.8 | 3.5 | 3.4 | 27 | 27 | Hour | 85.3 | 30 to 150 | Adequate |
| 9 | Treated water collection tank | 1 | 10 | 5 | 3 | 2.7 | 135 | 150 | Hour | 7.2 | - | Adequate |
| 10 | Filter press | 2 | ----- | ---- | ---- | ---- | ----- | ----- | - | - | - | 48"*48"*47 Plates |
| 11 | Lime slurry prp. tank | 1 | 2 | 2 | 2 | 1.7 | 6.8 | 8 | - | 0.4 | - | Adequate |

**STAGE WISE EFFLUENT CHARACTERISTICS DETAILS:**

| Parameter | Unit | Inlet effluent quality Equalization | Physio-chemical Treatment Lamella Settler – I | Electro-coagulation System | Physio-chemical Treatment Lamella Settler – II | Final treated quality |
|---|---|---|---|---|---|---|
| pH | - | 2.0-3.0 | 6.5 to 8.5 | 6.5 to 8.5 | 6.5 to 8.5 | 6.5 to 8.5 |
| TSS | mg/L | 5000 | <500 | <100 | <100 | <100 |
| COD | mg/L | 1000 | <500 | <100 | <100 | <100 |
| Fluoride | mg/L | <10000 | < 1000 | < 15 | < 15 | < 15 |

**Equalization Tank**

The fluorinated effluent streams from different sources shall be collected in collection cum equalization tank. Equalization of fluctuating wastewater flows will make hydraulic pollutant loadings more uniform and will improve the effectiveness or reliability of essential treatment processes.

**Neutralization Tank**

Through equalization pH is stabilized and chemical requirements are minimized for neutralization, dosing of treatment chemicals are controlled. Equalization improves process reliability. The equalized flow shall be fed to neutralization tank for neutralization the effluent. The feeding pH is between 2 to 3, it is required to dose hydrated lime solution. It is required to maintain pH between 6.5 to 8.5.

**Flash Mixer**

The colloidal particles present in effluent require coagulation for flocs to agglomerate. In flash mixer, the coagulants viz., non-ferric alum or PAC, shall be added under rapid mixing.



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**Flocculator**

The coagulated effluent shall be then fed to Flocculator where polyelectrolyte shall be added under slow mixing for formation of flocs readily settle able.

**Tube Settler – I**

The effluent shall be then fed to tube settler – I for solids separation. Settled solids removed from Tube Settler and collected into the sludge collection tank.

**Holding Tank**

Tube Settler – I clear overflow shall be collected into the holding tank for check quality of fluoride. If fluoride is found high (more than 15 mg/L) then effluent fed into the electro-coagulation system for further removal of fluoride and fluoride is found below 15 mg/L then effluent shall be transferred to final treated collection tank for final disposal.

**Electro coagulation System**

If fluoride is found high (more than 15 mg/L) in holding tank, then fed to Electro-coagulation System for final Fluoride removal.

**Tube Settler – II**

The effluent shall be then fed to tube settler – II for solids separation. Settled solids removed from Tube Settler and collected into the sludge collection tank.

**Final Treated Collection Tank**

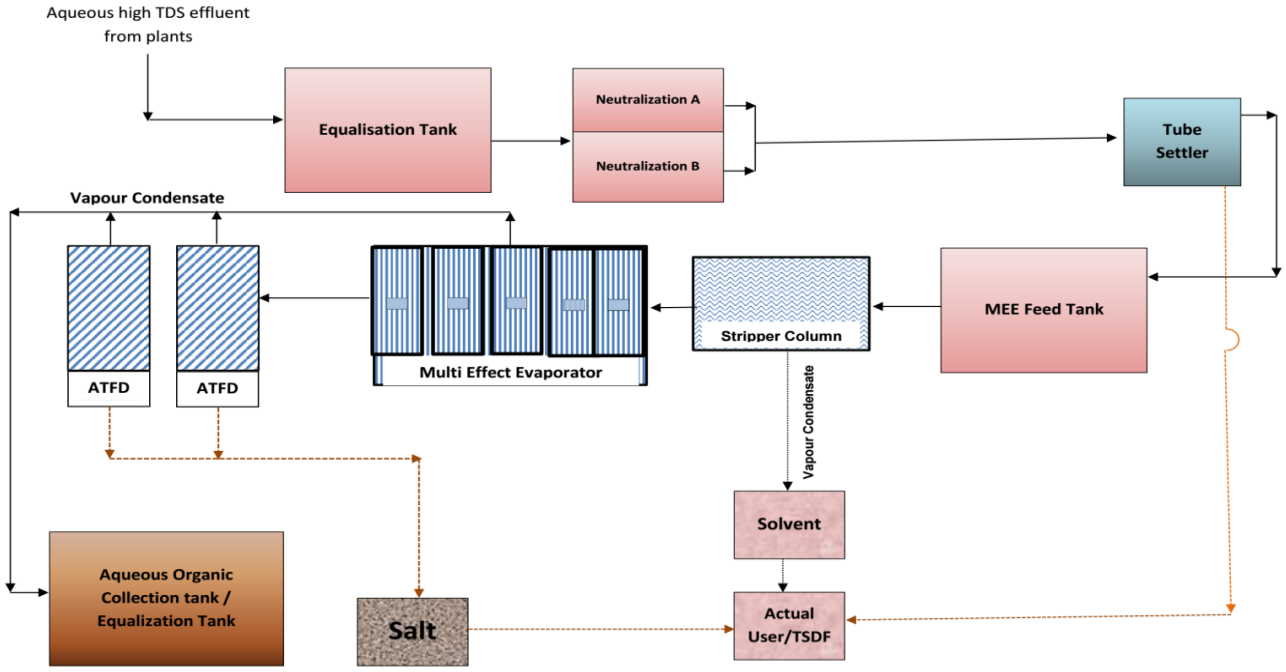
The treated effluent shall be discharged to Final Treated Collection Tank for final discharge to GIDC drain.

**Filter Press**

The primary sludge from (Tube Settler – I and II) shall be collected in the sludge holding tank, then fed into the Filter Press for dewatering. Leachate shall be transferred to the equalization tank and the dewatered sludge shall be stored in impervious designated area. Sludge should be reused as raw material $CaF_2$ in AHF plant.

## 2. TREATMENT SCHEME FOR HIGH TDS WITH HIGH ORGANIC EFFLUENT STREAM:

**Schematic Diagram of High TDS with High organic Effluent Treatment Plant:**






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**STAGE WISE EFFLUENT CHARACTERISTICS DETAILS:**

| Parameter | Unit | Inlet effluent quality | Primary treated quality | Stripper Column | MEE Condensate | ATFD Condensate | ATFD Salt |
|---|---|---|---|---|---|---|---|
| pH | - | 04 to 11 | 7 to 8 | 7 to 8 | 7 to 8 | 7 to 8 | 7 to 8 |
| TSS | mg/L | 1000 | < 100 | < 100 | < 100 | < 100 | - |
| TDS | mg/L | 150000 | 150000 | 105000 | 3000 | 2500 | - |
| NH4-N | mg/L | 300 | 200 | 20 | 20 | 20 | - |
| COD | mg/L | 50000 | 45000 | 250000 | 5000 | 2500 | - |

High TDS with high organic effluent treatment plant is establishing with physio-chemical, Stripper Column and Multi effect Evaporated with Agitated Thin Film Dryer process. The collected influent is equalized in collection by continuous air diffusion system.

**Equalization**

Influent coming from different plant pits with having COD less than 50000 mg/L and TDS less than 150000 mg/L are collected in equalization tank. Through equalization pH is stabilized and chemical requirements are minimized for neutralization.

**Physio-chemical treatment**

The equalized flow shall be fed to neutralization tanks for neutralization process. When pH is below 8, it is required to dose caustic soda 50 % or lime solution. When pH is above 9, it is required to dose recovered HCl.

**Flash Mixer**

The colloidal particles present in effluent require coagulation for flocs to agglomerate. In flash mixer, the coagulants viz., non-ferric alum or PAC, shall be added under rapid mixing.

**Flocculator**

The coagulated effluent shall be then fed to flocculator where polyelectrolyte shall be added under slow mixing for formation of flocs readily settleable.

**Sedimentation**

The effluent shall be then fed to tube settler for solids separation. Settled Solids removed from Primary Tube Settler to sludge holding tank.

**Feed Tank**

The primary treated clear overflow effluent collected in to Feed Tank.

**Quadruple Effect Evaporators with Agitated Thin Film Dryer**

- The clarified effluent shall be pumped to Stripper Column through Pre-heaters for removal of low boilers. Condensate of stripper shall be collected in stripper condensate tank. It shall be disposed to CHWIF for incineration.
- The concentrated stream shall be fed in to Multi Effect Evaporated (MEE) column for evaporation. MEE condensate shall be collected in MEE condensate tank. It shall be transferred to Low TDS with low COD stream for further treatment.
- The MEE concentrated stream shall be fed in to Agitated Thin Film Dryer (ATFD).
- ATFD condensate shall be collected in to ATFD condensate tank. It shall be transferred to Low TDS with low COD stream for further treatment and the ATFD salt shall be disposed to secured landfill site.

**Sludge Decanting and Dewatering**

The primary sludge from primary tube settler shall be collected in the sludge holding tank, and then fed into the Filter Press for dewatering. Leachate shall be transferred to the equalization tank and the dewatered sludge shall be stored in impervious designated area. Sludge should be disposed to secured landfill site.



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**BASIS OF DESIGN – Multi Effect Evaporator with Agitated Thin Film Dryer**

We have considered 5500 kg/hr feed with the inlet of 1 % w/w Low boilers (Solvent). We have considered for the design basis as Solvent 1 % w/w.

**Stripper Section**

| | | |
|---|---|---|
| Type of System | : | Packed Bed type stripper system |
| **CAPACITY** | | |
| Organics | : | (55 kg/hr Solvent + 55 kg/hr Water) |
| Feed Rate | : | 5500 Kg/hr (15 % w/w TDS) |
| **FEED PROPERTIES** | | |
| Organics | : | 1 % w/w basis. (Solvent) – Low Boilers |
| Solvent | : | Water |
| Specific Gravity | : | 1.15 |
| Temperature | : | 30°C |
| Viscosity | : | 4-6 cp |
| **TOP PRODUCT FROM STRIPPER** | | |
| Organics | : | (55 kg/hr Solvent + 55 kg/hr Water) |
| Temperature | : | 50 - 55°C |
| BOTTOM PRODUCT FROM STRIPPER (TO EVAPORATOR) | : | |
| **OPERATING CONDITIONS** | | |
| Mode of Heating | : | Steam |
| Steam | : | 150 kg/hr @ Dry Saturated at 3 bar (g) |
| Power (Installed / Absorbed) | : | 16 KW / 13 KW |
| Cooling Water | : | 12 m3/hr |
| **MATERIAL OF CONSTRUCTION** | | |
| All contact parts | : | Duplex steel |
| Vapor / Condensate | : | SS 316L |

**EVAPORATOR SECTION**

| | | |
|---|---|---|
| **Type of System** | **:** | **Four effect Forced circulation evaporator** |
| **CAPACITY (Evaporation Plant)** | | |
| Evaporation Rate | : | 3850 kg/hr |
| Feed Rate | : | 5500 Kg/hr |
| Product Rate | : | 1650 Kg/hr (50 %w/w solids) |
| | | |



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| | | | | |
|---|---|---|---|---|
| **FEED PROPERTIES** | | | | |
| Solid Content Range (w/w) | : | 15 % w/w (TSS less than 500 ppm) (COD: 80000 to 100000 mg/lit) | | |
| Form | : | Clear Solution with totally dissolved solids | | |
| Solvent | : | Water | | |
| Specific Gravity & PH | : | 1.15 & Min. 6.5 and Max. 7.5 | | |
| Viscosity | | 4-6 cp (assumed) | | |
| Temperature | : | 30°C | | |
| **OPERATING CONDITIONS** | | | | |
| Mode of Heating | : | Dry Saturated Steam at 3 kg/cm2 (g) | | |
| **MATERIAL OF CONST** | | | | |
| Feed/ Product | : | Duplex steel | | |
| Vapor Liquid Separators | : | SS 316L | | |
| Non-contact parts | : | SS 316L | | |
| **UTILITY SPECIFICATIONS** | | | | |
| **Power** (Evaporator) | : | Voltage: 415 / 4 wire Frequency: 50 HZ | | |
| | | Connected Load | : | 68 kW |
| | | Consumed Load | : | 54.5 kW |
| **Steam** (Evaporator) | : | Dry Saturated at 3.0 kgs/cm2 (g) Before Control valve | | |
| | | | : | **1170 kg/hr** |
| Cooling water | | Normal at 2 kgs./sq.cm(g) | : | 120 m3/hr |
| | | Inlet temp 32°C /Outlet temp. 37°C | | 1.2 m3/hr |
| | | Make up & Seal water | : | |
| Space Requirement | : | 15 mL x 12 mW x 15 mH | | |

**AGITATED THIN FILM DRYER SECTION**

| | | |
|---|---|---|
| CAPACITY | : | 915 kg/h WATER EVAPORATION |
| FEED RATE | : | 2000 kg/h |
| INITIAL SOLIDS | : | 50 % |
| FINAL MOISTURE IN DRY PRODUCT | : | 5-10 % |
| WATER EVAPORATION | : | 915 kg/h |
| DRY SOLID OUTPUT | : | 1085 kg/h |
| **DRY SATURATED STEAM REQUIREMENT** | | |
| At 7 kg/cm2-g PRESSURE | : | 1100 kg/h |
| ELECTRICAL LOAD | : | 47 kW (Each) |
| NORMAL CONSUMPTION | : | 38 kW (Each) |
| **COOLING WATER CIRCULATION** | | |
| RATE AT 32°C - 37°C | : | 100 m3/h |
| COOLING WATER INLET TEMP | : | 32 °C |
| COOLING WATER OUTLET TEMP | : | 37 °C |



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| TECHNICAL SPECIFICATIONS (MECHANICAL) | | |
|---|---|---|
| Jacket temperature | 250°C (Design) | |
| Jacket pressure | 15 kg/cm2-g (Design) | |
| Surface area | **20 square meters (Approximately) 2 nos.** | |
| Rotor Design | High Performance hinged blades (dryer type) | |
| Rotor speed | approximately 270 - 300 rpm | |
| Distributor | Distribution ring | |
| Power | 38 KW, 415V 50Hz | |
| Top bearing | Taper Roller type | |
| Bottom bearing | Roller type OR Bush bearing | |
| **Agitated Thin Film Dryer (Section – A)** | | |
| Agitated Thin Film Dryer – 20 m2(Quoted Separately) | 2 nos. | Inner Shell: SS 316L Outer Shell: SS 316L |
| **Accessories (Section – B)** | | |
| Balance Tank for Feed | 1 no. | SS 316L |
| Vapor Exhaust Duct (1 Lot) | 1 no. | SS 316L |
| Blower | 1 no. | SS 316L |
| SS Pipes & Fittings (Sch 10 – 1 lot) | 1 no. | SS 316L (Sch. 10) |
| Surface Condenser | 1 no. | Shell: SS 316L, Tubes: Duplex Steel Tube Sheet: Duplex Steel |

**ADDITIONAL NEW INSTALLATIONS:**

1. **DESIGN BASIS OF STRIPPER– 2NOS.**

| | | |
|---|---|---|
| Type of System | : | Packed Bed Type Stripper System |
| CAPACITY | | |
| Organics | : | 1988 kg/h Solvent + 1988 kg/h Water |
| Feed Rate | : | 15900 kg/h (12.5 % w/w Low Boilers) |
| FEED PROPERTIES | | |
| Organics | : | 12.5 % w/w Low Boilers, Other Water |
| Solvent | : | Low Boilers |
| Specific Gravity | : | 1.07 |
| pH | : | 6-7 (pH to be neutralized before entering to the system) |
| Temperature | : | 30 C |
| Viscosity | : | < 3 Cp |
| TOP PRODUCT FROM STRIPPER | | |



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| | | |
|---|---|---|
| Organics | : | 1988 kg/h Solvent + 1988 kg/h Water |
| Temperature | : | 90 - 95°C |
| BOTTOM PRODUCT FROM STRIPPER | | |
| Bottom Product | : | 11924 kg/h |
| Temperature | : | 75° to 80°C |
| OPERATING CONDITIONS | | |
| Mode of Heating | : | Dry Saturated at 3 kg/cm2 (g) @ PHS-01 |

**2. DESIGN BASIS OF TVR+MEE(4FC)+SEE(1FC) – 2NOS.**

| | | |
|---|---|---|
| Type of System | : | TVR + Four Effect (4FC) Circulation Evaporator |
| CAPACITY (Evaporation Plant) | : | As per 7% w/w TDS |
| Evaporation Rate | : | 11777 kg/h |
| Feed Rate | : | 15900 kg/h |
| Product Rate | : | 4123 kg/h (27% w/w) |
| FEED PROPERTIES | | |
| Feed Composition (w/w) | : | 7% w/w TDS |
| Form | : | Clear Solution with totally dissolved solids |
| Solvent | : | Water |
| Specific Gravity | : | 1.07 |
| Viscosity | : | 4-6 cp |
| pH | : | 6.5-8 |
| Temperature | : | 25-35° C |
| OPERATING CONDITIONS | | |
| Mode of Heating | : | Dry Saturated Steam at 7 kg/cm2 (g) @ TVR-01 |

| | | |
|---|---|---|
| Type of System | : | Single Effect (1FC) Circulation |
| CAPACITY (Evaporation Plant) | : | As per 27% w/w TDS |
| Evaporation Rate | : | 1339 kg/h |
| Feed Rate | : | 4123 kg/h |
| Product Rate | : | 2783 kg/h (40% w/w) |
| OPERATINGCONDITIONS | | |
| Mode of Heating | : | ATFD VAPOR |



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**3. DESIGN BASIS OF ATFD – 2NOS.**

| | | |
|---|---|---|
| Type of System | | ATFD (Agitated Thin Film Dryer) |
| Evaporation Rate | : | 1546 kg/h |
| Feed Rate | : | 2783 kg/h (40% w/w) |
| Product Rate | : | 1780 kg/h (8-10% Moisture) |
| Area | : | 30 M2 x 2 Nos. |
| FEED PROPERTIES | | |
| Solid Content Range | : | 40% w/w TDS |
| Solvent | : | Water |
| OPERATINGCONDITIONS | | |
| Mode of Heating | : | Dry Saturated Steam at 7 kg/cm2 (g) |
| Type of System | | ATFD (Agitated Thin Film Dryer) |
| Evaporation Rate | : | 1547 kg/h |
| Feed Rate | : | 2784 kg/h (40% w/w) |
| Product Rate | : | 1781 kg/h (8-10% Moisture) |
| Area | : | 31 M2 x 2 Nos. |
| FEED PROPERTIES | | |
| Solid Content Range | : | 40% w/w TDS |
| Solvent | : | Water |
| OPERATINGCONDITIONS | | |
| Mode of Heating | : | Dry Saturated Steam at 7 kg/cm2 (g) |

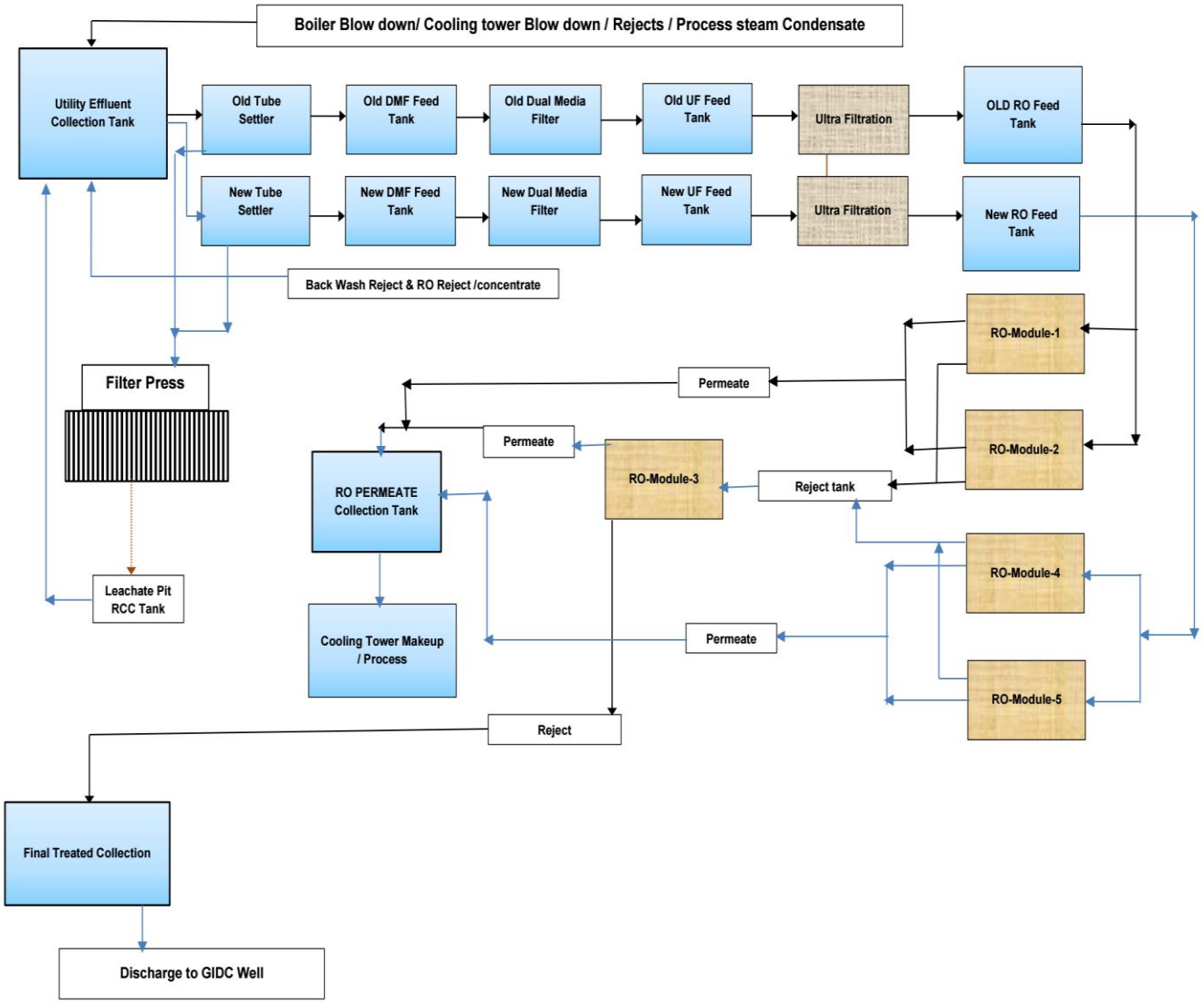
Note: Same designed philosophy has been adopted for other MEEs installations.



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## 3. TREATMENT SCHEME FOR UTILITY EFFLUENT GENERATED FROM DM/SOFTENER, COOLING TOWER AND BOILER BLOW DOWN:

**Schematic Diagram of Utility Effluent Treatment Plant:**




## DETAILS OF UNIT SIZE OF UTILITY EFFLUENT STREAM:

| Sr. No. | Treatment Unit | No. of Unit | Total Capacity (cum) | Remarks |
|---|---|---|---|---|
| 1 | Collection Tank | 1 | 1500 | Adequate |
| 2 | pH control Tank | 1 | 5 | Adequate |
| 3 | Tube settler | 1 | 40 | Adequate |
| 4 | Filter feed sump | 1 | 100 | Adequate |



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| | | | | |
|---|---|---|---|---|
| 5 | Permeate Tank | 1 | 800 | Adequate |
| 6 | Reject Tank | 1 | 1000 | Adequate |
| 7 | Ultra-Filtration | 4 | 1500 cum/d | Adequate |
| 8 | Reverse Osmosis | 4 | 1400 cum/d | Adequate |
| 9 | Reverse Osmosis | 1 | 1000 cum/d | Adequate |

**STAGE WISE EFFLUENT CHARACTERISTICS DETAILS:**

| Parameter | Unit | Inlet effluent quality | Primary treated quality | Permeate treated quality | Concentrated treated quality |
|---|---|---|---|---|---|
| pH | - | 7 to 8 | 7 to 8 | 6 to 7 | 7 to 8 |
| TSS | mg/L | 100 | < 50 | Nil | Nil |
| TDS | mg/L | 2500 | 2500 | < 225 | < 16500 |
| COD | mg/L | 50 | 25 | < 5 | < 100 |

Utility Effluent (from DM / Softener reject, cooling Tower and Boiler Blow Down) treatment plant is established with physio-chemical, Ultra filtration, and Reverse Osmosis process. The collected influent is equalized in collection by continuous air diffusion system.

**Equalization**
Utility waste water, DM plant waste water and blow downs from boiler and cooling tower shall be collected in collection tank.

**Physio-chemical treatment**
Acid, Alkali & coagulant pump shall be provided to pump Acid, Alkali & coagulant dosing in pH control tank. pH tank stirrer shall be provided to mix effluent & chemicals in the tank. pH indicator shall be provided in tube stirrer pH shall be interlocked with Acid & Alkali dosing pumps.

**Sedimentation**
Mix effluent from pH control tank shall overflow in tube settler. We are providing tube settler with cool deck media for better setting of suspended solids in tube settler. Settler sludge at bottom of tube settler shall be pumped in filter press feed sump.

**Filter Feed Sump:**
Tube settler shall over flow to filter feed sump collected effluent shall be pumped to dual media filter. For removing of suspended solids, turbidity & smell. We are providing dual media filter with one working & one stand by condition. This dual media is periodically required to be cleared of accumulated solids by back washing the filter using fresh water in reverse flow sequence.

**Ultra filtration System:**
Ultra filtration (UF) is a form of filtration that uses a membrane to separate different fluids or ions. Ultra filtration is not as fine a filtration process as Nano filtration, but it also does not require the same energy to perform the separation. Ultra filtration also uses a membrane that is partially permeable to perform the separation, but the membrane's pores are typically much larger than the membranes pores that are used in Nano filtration.
Ultrafiltration is most commonly used to separate a solution that has a mixture of some desirable components and some that are not desirable. One of the uses that demonstrate the usefulness of ultrafiltration is separation of oil in an emulsion from water. In this case, oil emulsions, for example, machining coolant emulsions can have the oil separated and concentrated, with the water phase being discharged to sanitary sewer, and the concentrated oil phase being disposed of at a lower cost.
Ultrafiltration is capable of concentrating bacteria, some proteins, some dyes, oils and colloidal or emulsified components. Ultrafiltration is only somewhat dependent upon the charge of the particle and is much more concerned with the size of the particle. Ultrafiltration is typically not effective at separating dissolved organic streams.

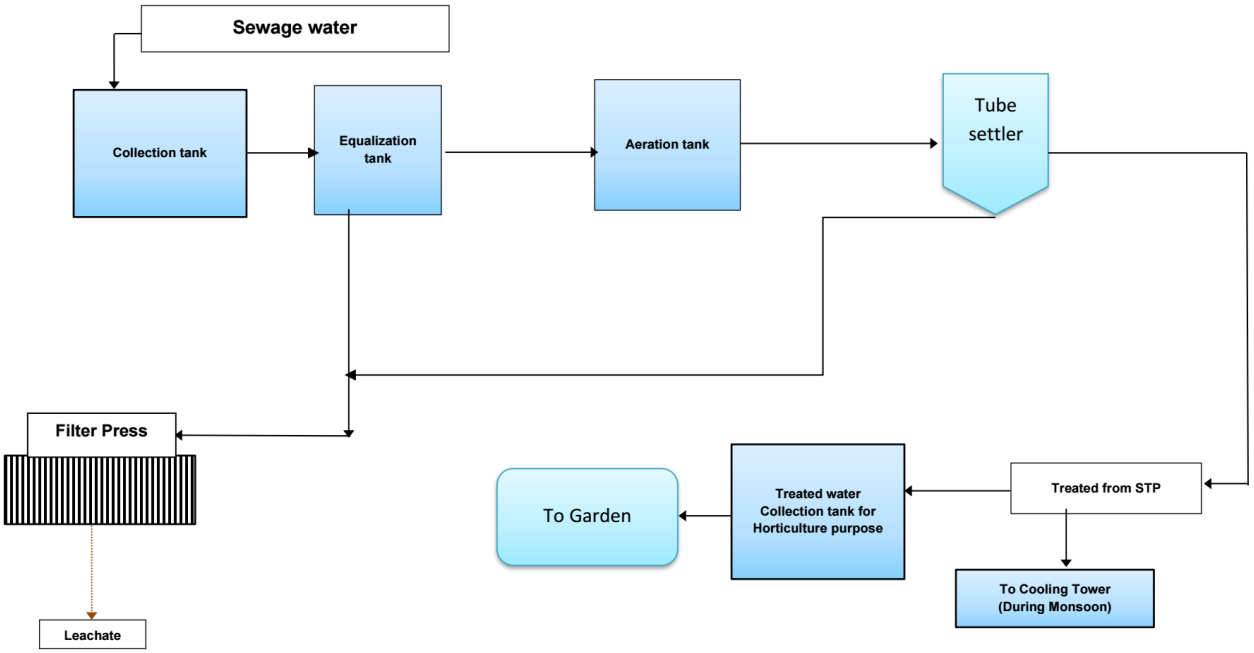

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**Reverse Osmosis System:**
Reverse osmosis is a membrane separation process for removing solvent from a solution. When a semi permeable membrane separates a dilute solution from a concentrated solution, solvent crosses from the dilute to the concentrated side of the membrane in an attempt to equalize concentrations. The flow of solvent can be prevented by applying an opposing hydrostatic pressure to the concentrated solution.
The magnitude of the pressure required to completely impede the flow of solvent is defined as the "osmotic pressure". If the applied hydrostatic pressure exceeds the osmotic pressure (see figure below), flow of solvent will be reversed, that is, solvent will flow from the concentrated to the dilute solution. This phenomenon is referred to as Reverse Osmosis. The figure illustrates the concepts of osmosis, osmotic pressure, and reverse osmosis schematically.

**Sludge Decanting and Dewatering**
The primary sludge from primary tube settler shall be collected in the sludge holding tank, and then fed in to the Filter Press for dewatering. Leachate shall be transferred to the equalization tank and the dewatered sludge shall be stored in impervious designated area. Sludge should be disposed to secured landfill site.

## 4. TREATMENT SCHEME FOR DOMESTIC EFFLUENT (STP) STREAM:

**Schematic Diagram of Sewage Treatment Plant:**




## DETAILS OF UNIT SIZE OF SEWAGE EFFLUENT TREATMENT PLANT:

| Sr No. | Treatment Unit | | No. of Unit | Size of Unit | | | | Capacity (cum) | | Design Parameter – Retention Time | | | | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | B | TD | LD | Hydraulic | Total | UoM | Designed | Actual | Recommended | |
| 1 | Collection Tank | | 1 | 2 | 7.7 | 2.6 | 2.3 | 35 | 40 | Hour | 2.8 | 2.5 | - | - |



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| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | Oil and Grease Trap | 1 | 1.7 | 3.6 | 3.5 | 3.2 | 20 | 21 | Hour | 1.6 | 1.4 | 0.2 to 0.3 | Adequate |
| 3 | Equalization Tank | 1 | 10 | 5 | 3 | 2.7 | 135 | 150 | Hour | 10.8 | 9.5 | 6 to 10 | Adequate |
| 4 | Aeration Tank | 1 | 10 | -- -- | 4 | 3.7 | 290.5 | 314 | Hour | 23.2 | 20.5 | 12 to 24 | Adequate |
| 5 | Tube Settler | 1 | 2.2 | 2.2 | 2.5 | 2.2 | 11 | 12 | Hour | 0.9 | 0.8 | 0.5 to 1 | Adequate |
| 6 | Treated water tank | 1 | 10 | 5 | 3 | 2.7 | 135 | 150 | Hour | 10.8 | 9.5 | - | - |

**STAGE WISE EFFLUENT CHARACTERISTICS DETAILS:**

| Parameter | Unit | Inlet effluent quantity/quality | Primary Treatment | Secondary Treatment | Ultra filtration treated quality | Final treated quality |
|---|---|---|---|---|---|---|
| pH | - | 8 to 9 | 7 to 8.5 | 7 to 8.5 | 7 to 8.5 | 7 to 8.5 |
| TSS | mg/L | 300 - 400 | < 10 | < 10 | < 1 | < 1 |
| BOD | mg/L | 300 - 500 | < 30 | < 20 | < 20 | < 20 |

**Collection Tank:**
Raw sewage from the plant through the pipeline comes to the collection tank. The sewage with the help of cutter pump (1 Working + 1 Stand by) transfer to bar Screen chamber

**Bar Screen:**
Raw sewage from the source is usually received into the bar screen chamber by gravity. Screen provided will remove all floating and big size matter such as plastic bottles, polythene bags, glasses, stones, etc., which may otherwise choke the pipeline and pumps.

**Oil & Grease Trap:**
If the sewage generated includes maximum quantity from kitchen and canteen, there is a possibility of higher concentrations of oil and grease in the raw sewage. It needs to be removed before biological treatment as it otherwise may cause problems for biological treatment. A small tank with a baffle wall is need for oil & grease trap.

**Equalization:**
Sewage with having BOD between 300 – 500 mg/L and TSS between 300 – 400 mg/L is collected in equalization tank. Through equalization pH is stabilized and chemical requirements are minimized for neutralization.

**Physio-chemical treatment**
Acid, Alkali & coagulant pump shall be provided to pump Acid, Alkali & coagulant dosing in pH control tank. pH tank stirrer shall be provided to mix effluent & chemicals in the tank. pH indicator shall be provided in tube stirrer pH shall be interlocked with Acid & Alkali dosing pumps.

**Tube Settler:**



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Mix effluent from pH control tank shall overflow in tube settler. We are providing tube settler with cool deck media for better setting of suspended solids in tube settler. Settler sludge at bottom of tube settler shall be pumped in filter press feed sump.

**Activated Sludge Process**

In activated sludge process wastewater containing organic matter is aerated in an aeration basin in which micro-organisms metabolize the suspended and soluble organic matter. Part of organic matter is synthesized into new cells and part is oxidized to CO2 and water to derive energy. In activated sludge systems the new cells formed in the reaction are removed from the liquid stream in the form of a flocculent sludge in secondary settling tanks. A part of this settled biomass, described as activated sludge is returned to the aeration tank and the remaining forms waste or excess sludge.

**Sludge Decanting and Dewatering:**

The sludge from the Primary Settling Tank and Secondary Settling Tank to be removed from the bottom of the Settling tank and transferred to sludge tank. Sludge fed in to the centrifuge for drying of the sludge & the dried sludge may be used as manure for development of greenbelt & the substrate may be recycled back to the equalization tank.



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# ANNEXURE –13

## MONTH WISE ENERGY CONSUMPTION FOR ETP

| Month | Electricity Consumed in ETP in KVA |
|---|---|
| Apr-23 | 1119568 |
| May-23 | 1130485 |
| Jun-23 | 1120001 |
| Jul-23 | 1193735 |
| Aug-23 | 1169955 |
| Sep-23 | 1159120 |
| Oct-23 | 1157572 |
| Nov-23 | 1161464 |
| Dec-23 | 1215597 |
| Jan-24 | 1153668 |
| Feb-24 | 1097650 |
| Mar-24 | 1251192 |
| Total | 13930007 |
| Avg./Month | **1160834** |



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# ANNEXURE – 14

## DETAILS OF OPERATOR/ CHEMIST FOR ETP

| List of Employee CETP | | |
|---|---|---|
| **Sr. No.** | **Employee Name** | **Qualification** |
| 1 | Praveen Mishra | MTech Environment |
| 2 | Mayurkumar Jadav | M. E. (Environment) + PDIS |
| 3 | Mayur Vekaria | M.Sc. (Environment) + PDIS |
| 4 | Mahesh Palkar | B.E (Chemical) |
| 5 | Anilkumar Vaghel | B.E (Environment) |
| 6 | Akram Patel | B.E (Chemical) |
| 7 | Bipin Nakum | B.E (Chemical) |
| 8 | Sahejad Patel | B.E (Chemical) |
| 9 | Monali Parmar | M.Sc. (Environment Mgmt.) |
| 10 | Chandra Shekhar | B.Sc. (PCM) |
| 11 | Ruchi Upadhyay | M.Sc. (Environment) / PDIETM |
| 12 | Ruchi Gangwar | Diploma (Chemical) |
| 13 | Bhavik Shah | M.Sc. (Organic Chemistry) |
| 14 | Radhakrishna Dwivedi | B.Sc. (Chemistry) |
| 15 | Pritesh Patel | M.Sc. (Chemistry) |
| 16 | Meet Vyas | Diploma (Chemical) |
| 17 | Parth Parmar | M.Sc. (Environment Mgmt.) |
| 18 | Mehul Sharma | B.Sc. (Chemistry) |
| 19 | Vikas Pandey | M.Sc. (Chemistry) |
| 20 | Umasankar Patel | Diploma (Chemical) |
| 21 | Lokesh Patra | Diploma (Mechanical) |
| 22 | Vikas Yadav | B.Sc. (Chemistry) |
| 23 | Bhoop Singh Pal | B.Sc. (Chemistry) |
| 24 | Rishabh Chauhan | Diploma (Chemical) |
| 25 | Pradeep Vishwakarma | B.Sc. (Chemistry) |
| 26 | Ronak Vasant | Diploma (Instrument) |
| 27 | Dilip Prajapati | Diploma (Chemical) |
| 28 | Mohammad Umar Shaikh | Diploma (Chemical) |
| 29 | Santosh Panda | M.Sc. (Chemistry) |
| 30 | Savan Salunke | M.Sc. (Chemistry) |
| 31 | Bipin Kumar Gupta | B.Sc. (Chemistry) |
| 32 | Manohar Patidar | M.Sc. (Biotech) |
| 33 | Harshad Patel | B.Sc. (Chemistry) |
| 34 | Ankur Yadav | B.Sc. (Chemistry) |
| 35 | Omkarnath Mishra | M.Sc. (Chemistry) |
| 36 | Ashok Yadav | ITI (AOCP) |
| 37 | Alpesh Jadav | ITI |
| 38 | Hiren Parekh | ITI (AOCP) |



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| | | |
|---|---|---|
| 39 | Dharmendra Yadav | ITI (AOCP) / B.A |
| 40 | Sarvesh Singh Pal | B.A |
| 41 | Prakashbhai Dodiya | ITI (AOCP) |
| 42 | Nilesh Parmar | ITI (AOCP) |
| 43 | Prakash Patel | ITI (AOCP) |
| 44 | Arjun Sindha | ITI (AOCP) |
| 45 | Chirag Patel | ITI (Instrument) |
| 46 | Imran Master | ITI (AOCP) |
| 47 | Suresh Kumar Sagathiya | ITI (AOCP) |
| 48 | Prakash Solanki | ITI (AOCP) |
| 49 | Mohsin Deewan | ITI (COPA) |
| 50 | Ravi Jawlekar | ITI (AOCP) |
| 51 | Vishal Prajapati | Diploma (Mechanical) |
| 52 | Sunny Macchi | ITI (Wireman) |
| 53 | Kiran Kumar Patel | ITI |
| 54 | Sakil Multani | ITI (Instrument) |
| 55 | Dilipsinh Yadav | ITI (AOCP) |
| 56 | Ajay Kumar Maurya | Diploma (Chemical) |
| 57 | Jayesh Vasava | ITI (Instrument) |
| 58 | Jitendra Thakre | ITI (Electrical) |
| 59 | Ajit Solanki | ITI (Fitter) |
| 60 | Rahul Vasava | ITI (Fitter) |
| 61 | Aditya Pal | Diploma (Mechanical) / B.A |
| 62 | Jayesh Patel | ITI (AOCP) |
| 63 | Neeraj Singh | B.A / ITI (Welder) |
| 64 | Jateen Bhoja Kansara | |
| 65 | Ashok Bhagat | ITI (AOCP) |
| 66 | Bhavesh Kumar Patel | ITI (AOCP) |
| 67 | Aziz Multani | ITI (AOCP) |
| 68 | Parimal Kanthariya | ITI (AOCP) / B.A |
| 69 | Yuvrajsinh Ataliya | ITI (AOCP) / B.A |
| 70 | Smit Patel | ITI (AOCP) |
| 71 | Ajay Desai | ITI (AOCP) |
| 72 | Haresh Parmar | ITI (AOCP) |
| 73 | Jignesh Patel | ITI (AOCP) |
| 74 | Vrund Patel | M.Sc. (Environment) |
| 75 | Sunny Dobariya | M.Sc. (Environment) |
| 76 | Raj Chhodavadiya | M.Sc. (Environment) |
| 77 | Richaben Modi | B.Tech (Environment) |



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# ANNEXURE – 15

## ANALYSIS REPORT OF WATER

| |
|---|
| First Monitoring |
| Sampling Location : **Wastewater (Inlet - CETP)** |
| Sampling Type: Grab Sampling |
| Sampling done by: Swarrnim Institute of Technology- Environmental Audit Team |
| Sampling Method: APHA & IS 3025 |

| Sr. No | Parameters | Unit | Result | Permissible Limit |
|---|---|---|---|---|
| 1 | pH | - | 9.5 | **6.0-9.0** |
| 2 | Temperature | mg/L | 29.0 | |
| 3 | TSS | mg/L | 78.0 | **100** |
| 4 | Oil & Grease | mg/L | 19.5 | **10** |
| 5 | Fluoride | mg/L | 5.6 | **15** |
| 6 | Sulphide | mg/L | 2.5 | **5** |
| 7 | Total Residual Chlorine | mg/L | <0.1 | **1.0** |
| 8 | Ammonical Nitrogen | mg/L | 185.0 | **50** |
| 9 | Total Kjendhal Nitrogen | mg/L | 220.00 | **50** |
| 10 | Nitrate Nitrogen | mg/L | 55.0 | **50** |
| 11 | BOD | mg/L | 1200.00 | **100** |
| 12 | COD | mg/L | 5002.00 | **250** |

| |
|---|
| First Monitoring |
| Sampling Location : **Wastewater (Outlet - CETP)** |
| Sampling Type: Grab Sampling |
| Sampling done by: Swarrnim Institute of Technology- Environmental Audit Team |
| Sampling Method: APHA & IS 3025 |

| Sr. No | Parameters | Unit | Result | Permissible Limit |
|---|---|---|---|---|
| 1 | pH | - | 7.5 | **6.0-9.0** |
| 2 | Temperature | mg/L | 28.0 | |
| 3 | TSS | mg/L | 38.0 | **100** |
| 4 | Oil & Grease | mg/L | <2.0 | **10** |



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| | | | | |
|---|---|---|---|---|
| 5 | Fluoride | mg/L | 0.55 | **15** |
| 6 | Sulphide | mg/L | 1.6 | **5** |
| 7 | Total Residual Chlorine | mg/L | <1.0 | **1.0** |
| 8 | Ammonical Nitrogen | mg/L | 11.5 | **50** |
| 9 | Total Kjendhal Nitrogen | mg/L | 29.4 | **50** |
| 10 | Nitrate Nitrogen | mg/L | 14.2 | **50** |
| 11 | BOD | mg/L | 60.0 | **100** |
| 12 | COD | mg/L | 19.0 | **250** |

| |
|---|
| Second Monitoring |
| Sampling Location : **Wastewater (Inlet - CETP)** |
| Sampling Type: Grab Sampling |
| Sampling done by: Swarrnim Institute of Technology- Environmental Audit Team |
| Sampling Method: APHA & IS 3025 |

| **Sr. No** | **Parameters** | **Unit** | **Result** | **Permissible Limit** |
|---|---|---|---|---|
| 1 | pH | - | 9.8 | 6.0-9.0 |
| 2 | Temperature | mg/L | 30.0 | |
| 3 | TSS | mg/L | 81.0 | 100 |
| 4 | Oil & Grease | mg/L | 18.8 | 10 |
| 5 | Fluoride | mg/L | 6.1 | 15 |
| 6 | Sulphide | mg/L | 2.8 | 5 |
| 7 | Total Residual Chlorine | mg/L | <0.1 | 1.0 |
| 8 | Ammonical Nitrogen | mg/L | 195.0 | 50 |
| 9 | Total Kjendhal Nitrogen | mg/L | 230.00 | 50 |
| 10 | Nitrate Nitrogen | mg/L | 59.0 | 50 |
| 11 | BOD | mg/L | 1250.00 | 100 |
| 12 | COD | mg/L | 5153.00 | 250 |

| |
|---|
| Second Monitoring |
| Sampling Location : **Wastewater (Outlet - CETP)** |
| Sampling Type: Grab Sampling |
| Sampling done by: Swarrnim Institute of Technology- Environmental Audit Team |
| Sampling Method: APHA & IS 3025 |



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| Sr. No | Parameters | Unit | Result | Permissible Limit |
|---|---|---|---|---|
| 1 | pH | - | **7.4** | **6.0-9.0** |
| 2 | Temperature | mg/L | 29.0 | |
| 3 | TSS | mg/L | **41.0** | **100** |
| 4 | Oil & Grease | mg/L | **<2.0** | **10** |
| 5 | Fluoride | mg/L | **0.65** | **15** |
| 6 | Sulphide | mg/L | **1.9** | **5** |
| 7 | Total Residual Chlorine | mg/L | **<1.0** | **1.0** |
| 8 | Ammonical Nitrogen | mg/L | **12.7** | **50** |
| 9 | Total Kjendhal Nitrogen | mg/L | **28.9** | **50** |
| 10 | Nitrate Nitrogen | mg/L | **16.1** | **50** |
| 11 | BOD | mg/L | **59.0** | **100** |
| 12 | COD | mg/L | **22.0** | **250** |

| Third Monitoring |
|---|
| Sampling Location : **Wastewater (Inlet - CETP)** |
| Sampling Type: Grab Sampling |
| Sampling done by: Swarrnim Institute of Technology- Environmental Audit Team |
| Sampling Method: APHA & IS 3025 |

| Sr. No | Parameters | Unit | Result | Permissible Limit |
|---|---|---|---|---|
| 1 | pH | - | 9.7 | 6.0-9.0 |
| 2 | Temperature | mg/L | 31.0 | |
| 3 | TSS | mg/L | 91.0 | 100 |
| 4 | Oil & Grease | mg/L | 17.9 | 10 |
| 5 | Fluoride | mg/L | 6.7 | 15 |
| 6 | Sulphide | mg/L | 3.2 | 5 |
| 7 | Total Residual Chlorine | mg/L | <0.1 | 1.0 |
| 8 | Ammonical Nitrogen | mg/L | 194.0 | 50 |
| 9 | Total Kjendhal Nitrogen | mg/L | 245.00 | 50 |
| 10 | Nitrate Nitrogen | mg/L | 58.0 | 50 |
| 11 | BOD | mg/L | 1310.00 | 100 |
| 12 | COD | mg/L | 5253.00 | 250 |



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| |
|---|
| Third Monitoring |
| Sampling Location : **Wastewater (Outlet - CETP)** |
| Sampling Type: Grab Sampling |
| Sampling done by: Swarrnim Institute of Technology- Environmental Audit Team |
| Sampling Method: APHA & IS 3025 |

| Sr. No | Parameters | Unit | Result | Permissible Limit |
|---|---|---|---|---|
| 1 | pH | - | 7.6 | 6.0-9.0 |
| 2 | Temperature | mg/L | 31.0 | |
| 3 | TSS | mg/L | 45.0 | 100 |
| 4 | Oil & Grease | mg/L | <2.0 | 10 |
| 5 | Fluoride | mg/L | 0.75 | 15 |
| 6 | Sulphide | mg/L | 2.1 | 5 |
| 7 | Total Residual Chlorine | mg/L | <1.0 | 1.0 |
| 8 | Ammonical Nitrogen | mg/L | 13.7 | 50 |
| 9 | Total Kjendhal Nitrogen | mg/L | 29.3 | 50 |
| 10 | Nitrate Nitrogen | mg/L | 17.1 | 50 |
| 11 | BOD | mg/L | 37.0 | 100 |
| 12 | COD | mg/L | 26.0 | 250 |



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# ANNEXURE -16

## DETAILS OF FLUE AND PROCESS GAS STACK & FUEL CONSUMPTION

| Stack No. | Stack Attached To | Stack Height in Meter | Air Pollution Control Measures | Parameter | Permissible Limit |
|---|---|---|---|---|---|
| 1 | Boiler 175 TPH | 110 | **Electrostatic Precipitator + Auto Lime Dosing system** | PM<br>SO2<br>Nox<br>Hg | 30 mg/Nm3<br>100 mg/Nm3<br>100 mg/Nm3<br>0.003 mg/Nm3 |
| 2 | Boiler 35 TPH | 94 (Common Stack) | **Electrostatic Precipitator** | PM<br>SO2<br>Nox<br>Hg | 50 mg/Nm3<br>600 mg/Nm3<br>450 mg/Nm3<br>0.003 mg/Nm3 |
| 3 | Boiler 35 TPH | | | | |
| 4 | Boiler 60 TPH | | | | |
| 5 | DG Set 500 KW (600 KVA) | 11 | - | Particulate Matter<br>SO2<br>Nox | 150 mg/Nm3<br>100 ppm<br>50 ppm |
| 6 | DG Set 500 KW (600 KVA) | 11 | - | | |
| 7 | DG Set 840 KW (1010 KVA) | 30 | - | | |
| 8 | DG Set 840 KW (1010 KVA) | 30 | - | | |
| 9 | TCE/PCE Plant Thermic Fluid Heaters No. 1 | 50 | **Efficient Burner** | | |
| 10 | TCE/PCE Plant Thermic Fluid Heaters No. 2 | 50 | **Efficient Burner** | | |
| 11 | HFC 134a Plant Thermic Fluid Heaters | 50 | **Efficient Burner** | | |
| 12 | AHF Plant Heater No. 1 (Thermic Fluid Heaters) | 46 | **Efficient Burner** | | |
| 13 | AHF Plant Drying System No. 1 | 35 | **Cyclone Separator / Bag Filter** | | |
| 14 | AHF Plant Heaters No. 2 (Thermic Fluid Heater) | 46 | **Efficient Burner** | | |
| 15 | AHF Plant Drying System No. 2 | 35 | **Cyclone Separator / Bag Filter** | | |
| 16 | Difluoromethan (HFC 32) Plant Hot Oil Furnace (Thermic Fluid Heater) | 55 | **Efficient Burner** | | |
| 17 | Boiler 30 TPH | 63 | - | | |
| 18 | Boiler 30 TPH | 63 | - | | |
| 19 | DG Sets 4200 KVA | 30 | - | | |
| 20 | DG Sets 4200 KVA | 30 | - | | |



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| | | | | | |
|---|---|---|---|---|---|
| 21 | DG Sets 4200 KVA | 30 | - | | |
| 22 | Boiler 17 TPH | 53 | - | | |
| 23 | Dust Collector | 11 | **Bag filter** | Particulate Matter | 150 mg/Nm3 |
| **DETAILS OF PROCESS STACK ARE AS BELOW** | | | | | |
| **HF Plant Stack** | | | | | |
| 1 | HF Plant Central Absorption System | 30 | **Continuous water Circulation** | HF | 6mg/NM3 |
| **TCE/PCE Plant Stack** | | | | | |
| 2 | TCE/PCE Plant (Central Absorption System) | 20 | **Continuous Alkali Circulation** | Cl2 | 9mg/NM3 |
| 3 | TCE/PCE Plant (Central Absorption System) | 30 | **Continuous Water Circulation** | HCl | 20mg/NM3 |
| **HFC Plant Stack** | | | | | |
| 4 | R134a Plant (Central Absorption System) | 30 | **Continuous Water Circulation** | HCl | 20mg/NM3 |
| | | | | HF | 6mg/NM3 |
| 5 | CMS plant (Methylene dichloride, Chloroform, Carbon tetrachloride) Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 6 | Chlorotrifluoroethane (HCFC 133a) Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 7 | Pentafluoroethane (HFC 125) Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 8 | Difluoromethane (HFC - 32) Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| **Flourospeciality Plant Stacks** | | | | | |
| 9 | Reactor / Vessel (10 Nos.) Central Absorption System | 30 | **Continuous Water Circulation** | HF | 6mg/NM3 |
| | | | | HCl | 20mg/NM3 |
| 10 | Reactor / Vessel (10 Nos.) Central Absorption System | 30 | **Continuous Water Circulation** | HCl | 20mg/NM3 |
| 11 | Reactor / Vessel (04 Nos.) Central Absorption System | 20 | **Continuous Alkali Circulation** | Cl2 | 9mg/NM3 |
| 12 | Reactor / Vessel (02 Nos.) Central Absorption System | 20 | **Continuous Alkali Circulation** | Br2 | 2mg/NM3 |
| 13 | Trifluoro Acetic Acid Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 14 | Ethyldifluoroacetate Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 15 | Ethyltrifluroacetate Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HF | 6 mg/NM3 |
| 16 | Ethyltrifluoroacetoacetate Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| 17 | Pentafluorobenzoic Acid Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |



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| | | | | | |
|---|---|---|---|---|---|
| 18 | Pyrazole Acid Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| 19 | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| 20 | Tetrafluoropropene - 1234yf Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 21 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| 22 | Hexafluoropropylene Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| 23 | Difluoromethanesulphonlychloride Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 24 | Trifluoromethylbenzamide Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 25 | Bromopentafluorobenzene Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | Br2 | 2 mg/NM3 |
| 26 | 5-Bromo-2-2-difluoro-1-3-benzodioxide Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 27 | Difluorobenzodioxole methyl ester Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| 28 | Methyl-2- Fluoroacrylate Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HF | 6 mg/NM3 |
| 29 | SCB HCl Storage Tank Farm | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| 30 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) Central Absorption System | 30 | **Continuous Water + Alkali Circulation** | HCl | 20 mg/NM3 |
| 31 | Flare Stack attached to Topramezone Plant | 30 | **N.A.** | - | - |
| 32 | Chlorodifluoromethane (R22) Plant Central Absorption System | 30 | **Continuous water Circulation** | HF | 6mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 33 | Calcium Chloride Plant Scrubber | 30 | **Continuous Water + Sodium Carbonate Solutions** | CO2 | - |
| 34 | Methyl Hydroxy Pyrazole Central Absorption System | 30 | **Continuous water Circulation** | HCl | 20 mg/NM3 |
| 35 | TCE/PCE Acid tank farm area scrubber vent | 11.7 | **Continuous water Circulation** | HCl | 20 mg/NM3 |



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| | | | | | |
|---|---|---|---|---|---|
| 36 | HFC134a Acid tank farm area scrubber vent | 11.4 | **Continuous water Circulation** | HCl | 20 mg/NM3 |
| 37 | DHF Scrubber | 10 | **Continuous water Circulation** | HF | 6 mg/NM3 |

## MONTH WISE FUEL CONSUMPTION

| **Fuel Consumption** | | | | |
|---|---|---|---|---|
| **Month** | **Coal** | **FO** | **LSHS** | **HSD** |
| | **MT** | **KL** | **KL** | **KL** |
| **Apr-23** | 28738 | 0 | 886 | 226 |
| **May-23** | 25358 | 0 | 725 | 215 |
| **Jun-23** | 26532 | 0 | 539 | 294 |
| **Jul-23** | 31320 | 0 | 655 | 274 |
| **Aug-23** | 28908 | 0 | 495 | 201 |
| **Sep-23** | 22537 | 0 | 895 | 229 |
| **Oct-23** | 24587 | 0 | 483 | 179 |
| **Nov-23** | 25374 | 0 | 574 | 191 |
| **Dec-23** | 28187 | 0 | 692 | 345 |
| **Jan-24** | 29292 | 0 | 712 | 326 |
| **Feb-24** | 27735 | 0 | 594 | 249 |
| **Mar-24** | 22909 | 0 | 907 | 248 |
| **Total** | **321477** | **0** | **8157** | **2978** |
| **Per month** | **26790** | **0** | **680** | **248** |
| **Per day** | **878** | **0** | **22** | **8** |



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# ANNEXURE –17

## ANALYSIS REPORT OF STACK EMISSIONS

## 1st VISIT ANALYSIS REPORT

| Sr. No. | Boiler / TFH / Heaters | Stack height (mt) | Stack Dia(m) | Parameters | Results | GPCB Permissible Limit |
|---|---|---|---|---|---|---|
| | **Boiler / TFH / Heaters** | | | | | |
| 1 | DG -1 Sets 600 KVA(500 KW) | 11 | 0.4 | PM | 60.5 | 150 |
| | | | | SO2 | 16.5 | 100 |
| | | | | NOx | 17.5 | 50 |
| 2 | DG -2 Sets 600 KVA(500 KW) | 11 | 0.4 | PM | 61.2 | 150 |
| | | | | SO2 | 22.2 | 100 |
| | | | | NOx | 16.2 | 50 |
| 3 | DG -1 Sets 1010 KVA (840 KW) | 30 | 0.8 | PM | 59.2 | 150 |
| | | | | SO2 | 26.5 | 100 |
| | | | | NOx | 17.7 | 50 |
| 4 | DG -2 Sets 1010 KVA (840 KW) | 30 | 0.8 | PM | 58.2 | 150 |
| | | | | SO2 | 24.4 | 100 |
| | | | | NOx | 14.3 | 50 |
| 5 | CPP 35 TPH + 35 TPH+ 60 TPH Boiler (Common Stack) | 94 | 2.5 | PM | 64.8 | 150 |
| | | | | SO2 | 26.1 | 100 |
| | | | | Nox | 18.3 | 50 |
| | | | | Hg | <0.001 | 0.03 |
| 6 | AHF Plant Drying System No. 1 (Thermic Fluid/ Fire Heaters) | 35 | 0.25 | PM | 65.2 | 150 |
| | | | | SO2 | 22.1 | 100 |
| | | | | NOx | 14.2 | 50 |
| 7 | AHF Plant Thermic Fluid/ fire Heater No. 1 | 46 | 0.7 | PM | 62.3 | 150 |
| | | | | SO2 | 21.8 | 100 |
| | | | | NOx | 13.5 | 50 |
| 8 | TCE/PCE Plant Thermic Fluid/ fire Heaters No. 1 | 50.2 | 0.732 | PM | 63.3 | 150 |
| | | | | SO2 | 26.2 | 100 |
| | | | | NOx | 16.9 | 50 |



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| | | | | | | |
|---|---|---|---|---|---|---|
| 9 | Difluoromethan (HFC 32) Plant Hot Oil Furnace (Thermic Fluif/ Fire Heaters) | 50.8 | 0.75 | PM | 65.2 | 150 |
| | | | | SO2 | 22.2 | 100 |
| | | | | NOx | 14.6 | 50 |
| 10 | HFC 134a Plant Thermic Fluid/ fire Heater | 50.8 | 0.75 | PM | 66.8 | 150 |
| | | | | SO2 | 25.2 | 100 |
| | | | | NOx | 18.9 | 50 |

| Sr. No. | Plant | Stack height (mt) | Stack Dia(m) | Parameters | Result | GPCB Permissible Limit |
|---|---|---|---|---|---|---|
| | **Process Stacks** | | | | | |
| 1 | HF Plant Central Absorption System | 36.7 | 0.15 | HF | 1.4 | 6.0 |
| 2 | Difluoromethane Central Absorption System | 30 | - | HCl | 5.6 | 20 |
| | | | | HF | 1.3 | 6.0 |
| 3 | Pentafluoroethane Central Absorption System | 30 | - | HCl | 6.2 | 20 |
| | | | | HF | 1.1 | 6.0 |
| 4 | TCE/PCE Plant Central Absorption System | 20 | 0.15 | CL2 | <1.0 | 9.0 |
| 5 | TCE/PCE Plant HCL Tank | 20 | 0.1 | HCL | 5.2 | 20 |
| 6 | TCE/PCE Plant Central Absorption System | 30 | 0.08 | HCl | 5.5 | 20 |
| 7 | R134a Plant Central Absorption System | 30 | 0.4 | HCl | 4.8 | 20 |
| | | | | HF | 1.3 | 6.0 |
| 8 | CMS Plant Central Absorption System | 30 | 0.25 | HCl | 6.6 | 20 |
| | | | | CL2 | <1.0 | 9.0 |
| 9 | Calcium Chloride Plant Scrubber | 30 | - | CO2 | | |
| | | | | HCl | 5.1 | 20 |
| 10 | Reactor/ Vesel Central Absorption system (MPP1) | 30 | 0.1 | HCl | 5.2 | 20 |
| | | | | HF | 1.1 | 6.0 |
| 11 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | 30 | 0.15 | HCl | 4.4 | 20 |
| 12 | 2-methyl-4-（ 1,1,1,2,3,3,3-heptafluoro-2-propyl aniline) Central Absorption System | 30 | 0.15 | HCl | 4.2 | 20 |
| | | | | Br2 | Nil | 2 |
| 13 | Trifluoro Acetic Acid Central Absorption System | 30 | 0.3 | HCl | 4.4 | 20 |
| | | | | HF | 1.2 | 6 |
| 14 | Pyrazole Acid Central Absorption System | 30 | 0.1 | HCl | 6.5 | 20 |
| 15 | Pentafluorobenzoic Acid Central Absorption System | 30 | 0.1 | HCl | 6.6 | 20 |
| | | | | CL2 | Nil | 9 |



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|---|---|---|---|---|---|---|
| 16 | Trifluoro methylbenzamide Central Absorption System | 30 | 0.15 | HCl | 5.0 | 20 |
| | | | | CL2 | Nil | 9 |
| 17 | Reactor/ Vesel Central Absorption system (MPP3) | 30 | 0.1 | CL2 | Nil | 9 |
| 18 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) Central Absorption System | 30 | 0.15 | HCl | 5.2 | 20 |
| 19 | Reactor/ Vesel Central Absorption system (MPP2) | 30 | 0.15 | HCl | 5.9 | 20 |
| | | | | HF | 1.3 | 6 |
| 20 | Reactor/ Vesel Central Absorption system (PP1) | 30 | 0.1 | Br2 | Nil | 2 |

# 2nd VISIT ANALYSIS REPORT

| Sr. No. | Boiler / TFH / Heaters | Stack height (mt) | Stack Dia(m) | Parameters | Results | GPCB Permissible Limit |
|---|---|---|---|---|---|---|
| | **Boiler / TFH / Heaters** | | | | | |
| 1 | CPP 35 TPH + 35 TPH+ 60 TPH Boiler (Common Stack) | 94 | 2.5 | PM | 68.6 | 150 |
| | | | | SO2 | 31.5 | 100 |
| | | | | Nox | 22.6 | 50 |
| | | | | Hg | <0.001 | 0.03 |
| 2 | AHF Plant Drying System No. 1 (Thermic Fluid/ Fire Heaters) | 35 | 0.25 | PM | 65.9 | 150 |
| | | | | SO2 | 25.4 | 100 |
| | | | | NOx | 16.5 | 50 |
| 3 | AHF Plant Thermic Fluid/ fire Heater No. 1 | 46 | 0.7 | PM | 67.3 | 150 |
| | | | | SO2 | 23.6 | 100 |
| | | | | NOx | 15.6 | 50 |
| 4 | TCE/PCE Plant Thermic Fluid/ fire Heaters No. 1 | 50.2 | 0.732 | PM | 66.3 | 150 |
| | | | | SO2 | 25.8 | 100 |
| | | | | NOx | 17.5 | 50 |
| 5 | Difluoromethan (HFC 32) Plant Hot Oil Furnace (Thermic Fluif/ Fire Heaters) | 50.8 | 0.75 | PM | 64.3 | 150 |
| | | | | SO2 | 27.5 | 100 |
| | | | | NOx | 19.3 | 50 |
| 6 | HFC 134a Plant Thermic Fluid/ fire Heater | 50.8 | 0.75 | PM | 68.3 | 150 |
| | | | | SO2 | 25.2 | 100 |
| | | | | NOx | 19.9 | 50 |



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| | | | | | | |
|---|---|---|---|---|---|---|
| 9 | Difluoromethan (HFC 32) Plant Hot Oil Furnace (Thermic Fluif/ Fire Heaters) | 50.8 | 0.75 | PM | 65.2 | 150 |
| | | | | SO2 | 22.2 | 100 |
| | | | | NOx | 14.6 | 50 |
| 10 | HFC 134a Plant Thermic Fluid/ fire Heater | 50.8 | 0.75 | PM | 66.8 | 150 |
| | | | | SO2 | 25.2 | 100 |
| | | | | NOx | 18.9 | 50 |

| Sr. No. | Plant | Stack height (mt) | Stack Dia(m) | Parameters | Result | GPCB Permissible Limit |
|---|---|---|---|---|---|---|
| | **Process Stacks** | | | | | |
| 1 | HF Plant Central Absorption System | 36.7 | 0.15 | HF | 1.6 | 6.0 |
| 2 | Difluoromethane Central Absorption System | 30 | - | HCl | 6.1 | 20 |
| | | | | HF | 2.2 | 6.0 |
| 3 | Pentafluoroethane Central Absorption System | 30 | - | HCl | 6.8 | 20 |
| | | | | HF | 1.4 | 6.0 |
| 4 | TCE/PCE Plant Central Absorption System | 20 | 0.15 | CL2 | <1.0 | 9.0 |
| 5 | TCE/PCE Plant HCL Tank | 20 | 0.1 | HCL | 5.5 | 20 |
| 6 | TCE/PCE Plant Central Absorption System | 30 | 0.08 | HCl | 6.9 | 20 |
| 7 | R134a Plant Central Absorption System | 30 | 0.4 | HCl | 5.3 | 20 |
| | | | | HF | 2.5 | 6.0 |
| 8 | CMS Plant Central Absorption System | 30 | 0.25 | HCl | 6.9 | 20 |
| | | | | CL2 | <1.0 | 9.0 |
| 9 | Calcium Chloride Plant Scrubber | 30 | - | CO2 | - | - |
| | | | | HCl | 6.3 | 20 |
| 10 | Reactor/ Vesel Central Absorption system (MPP1) | 30 | 0.1 | HCl | 5.5 | 20 |
| | | | | HF | 2.6 | 6.0 |
| 11 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | 30 | 0.15 | HCl | 5.1 | 20 |
| 12 | 2-methyl-4-（ 1,1,1,2,3,3,3-heptafluoro-2-propyl aniline) Central Absorption System | 30 | 0.15 | HCl | 5.3 | 20 |
| | | | | Br2 | Nil | 2.0 |
| 13 | Trifluoro Acetic Acid Central Absorption System | 30 | 0.3 | HCl | 4.9 | 20 |
| | | | | HF | 2.9 | 6.0 |
| 14 | Pyrazole Acid Central Absorption System | 30 | 0.1 | HCl | 7.1 | 20 |
| 15 | Pentafluorobenzoic Acid Central Absorption System | 30 | 0.1 | HCl | 7.6 | 20 |
| | | | | CL2 | <1.0 | 9.0 |



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|---|---|---|---|---|---|---|
| 17 | Reactor/ Vesel Central Absorption system (MPP4) | 30 | 0.1 | CL2 | <1.0 | 9.0 |
| 18 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) Central Absorption System | 30 | 0.15 | HCl | 6.2 | 20 |
| 20 | Reactor/ Vesel Central Absorption system (PP1) | 30 | 0.1 | Br2 | Nil | 2.0 |

## 3rd VISIT ANALYSIS REPORT

| Sr. No. | Boiler / TFH / Heaters | Stack height (mt) | Stack Dia(m) | Parameters | Results | GPCB Permissible Limit |
|---|---|---|---|---|---|---|
| | **Boiler / TFH / Heaters** | | | | | |
| 1 | AHF Plant Drying System No. 1 (Thermic Fluid/ Fire Heaters) | 94 | 2.5 | PM | 69.6 | 150 |
| | | | | SO2 | 32.5 | 100 |
| | | | | Nox | 21.6 | 50 |
| | | | | Hg | <0.001 | 0.03 |
| 2 | AHF Plant Drying System No. 2 (Thermic Fluid/ Fire Heaters) | 35 | 0.25 | PM | 66.9 | 150 |
| | | | | SO2 | 27.4 | 100 |
| | | | | NOx | 15.5 | 50 |
| 3 | AHF Plant Thermic Fluid/ fire Heater No. 1 | 46 | 0.7 | PM | 66.3 | 150 |
| | | | | SO2 | 24.6 | 100 |
| | | | | NOx | 16.6 | 50 |
| 4 | AHF Plant Thermic Fluid/ fire Heater No. 2 | 50.2 | 0.732 | PM | 64.7 | 150 |
| | | | | SO2 | 26.7 | 100 |
| | | | | NOx | 18.5 | 50 |
| 5 | TCE/PCE/Plant thermic/ Fire Heater no 1 | 50.8 | 0.75 | PM | 65.3 | 150 |
| | | | | SO2 | 28.5 | 100 |
| | | | | NOx | 20.3 | 50 |
| 6 | TCE/PCE/Plant thermic/ Fire Heater no 2 | 50.8 | 0.75 | PM | 66.3 | 150 |
| | | | | SO2 | 26.2 | 100 |
| | | | | NOx | 18.9 | 50 |
| 7 | Difluoromethan (HFC 32) Plant Hot Oil Furnace (Thermic Fluif/ Fire Heaters) | 50.8 | 0.75 | PM | 64.2 | 150 |
| | | | | SO2 | 23.2 | 100 |
| | | | | NOx | 15.6 | 50 |
| 8 | HFC 134a Plant Thermic Fluid/ fire Heater | 50.8 | 0.75 | PM | 67.8 | 150 |
| | | | | SO2 | 26.2 | 100 |
| | | | | NOx | 19.9 | 50 |



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| Sr. No. | Plant | Stack height (mt) | Stack Dia(m) | Parameters | Result | GPCB Permissible Limit |
|---|---|---|---|---|---|---|
| | **Process Stacks** | | | | | |
| 1 | HF Plant Central Absorption System | 36.7 | 0.15 | HF | 1.9 | 6.0 |
| 2 | Difluoromethane Central Absorption System | 30 | - | HCl | 7.5 | 20 |
| | | | | HF | 3.2 | 6.0 |
| 3 | Reactor/ Vesel Central Absorption system (PP1) | 30 | - | HCl | 6.9 | 20 |
| | | | | HF | 1.9 | 6.0 |
| 4 | TCE/PCE Plant Central Absorption System | 20 | 0.15 | CL2 | <1.0 | 9.0 |
| 5 | TCE/PCE Plant HCL Tank | 20 | 0.1 | HCL | 6.1 | 20 |
| 6 | TCE/PCE Plant Central Absorption System | 30 | 0.08 | HCl | 7.3 | 20 |
| 7 | R134a Plant Central Absorption System | 30 | 0.4 | HCl | 6.2 | 20 |
| | | | | HF | 3.1 | 6.0 |
| 8 | CMS Plant Central Absorption System | 30 | 0.25 | HCl | 6.4 | 20 |
| | | | | CL2 | <1.0 | 9.0 |
| 9 | Calcium Chloride Plant Scrubber | 30 | - | CO2 | - | - |
| | | | | HCl | 7.1 | 20 |
| 10 | Reactor/ Vesel Central Absorption system (MPP1) | 30 | 0.1 | HCl | 6.3 | 20 |
| | | | | HF | 3.1 | 6.0 |
| 11 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | 30 | 0.15 | HCl | 6.2 | 20 |
| 12 | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline) Central Absorption System | 30 | 0.15 | HCl | 6.4 | 20 |
| | | | | Br2 | Nil | 2 |
| 13 | Trifluoro Acetic Acid Central Absorption System | 30 | 0.3 | HCl | 5.1 | 20 |
| | | | | HF | 3.2 | 6.0 |
| 14 | Pyrazole Acid Central Absorption System | 30 | 0.1 | HCl | 7.8 | 20 |
| 15 | Pentafluorobenzoic Acid Central Absorption System | 30 | 0.1 | HCl | 6.6 | 20 |
| | | | | CL2 | <1.0 | 9.0 |
| 16 | Reactor/ Vesel Central Absorption system (MPP4) | 30 | 0.1 | CL2 | <1.0 | 9.0 |
| 17 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone) Central Absorption System | 30 | 0.15 | HCl | 7.0 | 20 |
| 18 | Reactor/ Vesel Central Absorption system (MPP2) | 30 | 0.14 | Br2 | Nil | 2 |
| 19 | Reactor/ Vesel Central Absorption system (MPP3) | 30 | 0.12 | Br2 | Nil | 2 |



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**ANNEXURE -18**

# AMBIENT AIR QUALITY MONITORING

| **First Monitoring** | | | | | | |
|---|---|---|---|---|---|---|
| **Sampling done by : Swarrnim Institute of Technology- Environmental Audit Team** | | | | | | |
| **Sampling Duration: 24 hours** | | | | | | |
| **Sampling Location** | **Parameter** | **Test Method** | **Test Results** | **Unit** | **GPCB Limits** | **% Deviation** |
| **Near P-32 Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 80.6 | $\mu g/m^3$ | 100 | - |
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 38.2 | $\mu g/m^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 22.5 | $\mu g/m^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 24.1 | $\mu g/m^3$ | 80 | - |
| **Near F-32 Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 77.0 | $\mu g/m^3$ | 100 | - |
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 33.2 | $\mu g/m^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 24.1 | $\mu g/m^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 22.2 | $\mu g/m^3$ | 80 | - |
| **Near CMS Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 74.8 | $\mu g/m^3$ | 100 | - |



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| | | | | | | |
|---|---|---|---|---|---|---|
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 35.5 | µg/m$_3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 28.1 | µg/m$_3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 23.7 | µg/m$_3$ | 80 | - |

| **Second Monitoring** | | | | | | |
|---|---|---|---|---|---|---|
| **Sampling done by : Swarrnim Institute of Technology- Environmental Audit Team** | | | | | | |
| **Sampling Duration: 24 hours** | | | | | | |
| **Sampling Location** | **Parameter** | **Test Method** | **Test Results** | **Unit** | **GPCB Limits** | **% Deviation** |
| **Near P-32 Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 81.6 | µg/m$^3$ | 100 | - |
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 39.2 | µg/m$^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 23.8 | µg/m$^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 23.2 | µg/m$^3$ | 80 | - |
| **Near F-32 Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 80.0 | µg/m$^3$ | 100 | - |
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 35.8 | µg/m$^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 26.2 | µg/m$^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 21.5 | µg/m$^3$ | 80 | - |
| **Near CMS Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 78.8 | µg/m$^3$ | 100 | - |



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|---|---|---|---|---|---|---|
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 34.5 | µg/m$^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 29.5 | µg/m$^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 24.7 | µg/m$^3$ | 80 | - |

| **Third Monitoring** | | | | | | |
|---|---|---|---|---|---|---|
| **Sampling done by : Swarrnim Institute of Technology- Environmental Audit Team** | | | | | | |
| **Sampling Duration: 24 hours** | | | | | | |
| **Sampling Location** | **Parameter** | **Test Method** | **Test Results** | **Unit** | **GPCB Limits** | **% Deviation** |
| **Near P-32 Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 85.6 | µg/m$^3$ | 100 | - |
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 40.3 | µg/m$^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 25.4 | µg/m$^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 24.2 | µg/m$^3$ | 80 | - |
| **Near F-32 Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 82.3 | µg/m$^3$ | 100 | - |
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 37.1 | µg/m$^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 25.8 | µg/m$^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 22.6 | µg/m$^3$ | 80 | - |
| **Near CMS Plant** | $PM_{10}$ | IS 5182 (part-23); 2006 | 84.9 | µg/m$^3$ | 100 | - |



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| | | | | | | |
|---|---|---|---|---|---|---|
| | $PM_{2.5}$ | SOP (ACTEnv.lab.) Gravimetric method (Based on CPCB guideline, 2011 for the measurement of Ambient ) | 35.5 | µg/$m^3$ | 60 | - |
| | $SO_2$ | IS 5182 (part-2); 2001 | 28.5 | µg/$m^3$ | 80 | - |
| | $NO_X$ | IS 5182 (part-6); 2006 | 23.7 | µg/$m^3$ | 80 | - |



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**ANNEXURE – 19**

# DETAILS OF HAZARDOUS WASTE

| Sr. No. | Name of Hazardous Waste | Waste Category No. | UOM | Total Hazardous Waste Quantity | Mode of disposal |
|---|---|---|---|---|---|
| 1 | Chemical sludge from wastewater treatment | 35.3 | MTA | 3265 | Collection, Storage, Transportation and disposal at approved TSDF or pre-processing/co-processing facility. |
| 2 | Spent Oil | 5.1 | MTA | 600 | Collection, Storage, Reuse, Transportation and disposal by sending to authorized recycler/ refiners. |
| 3 | Discarded containers / barrels / liners used for hazardous wastes/chemicals | 33.1 | MTA | 5428 | Collection, Storage, decontamination/detoxification, reuse, Transportation and disposal by sending to authorized decontamination facility. |
| 4 | Spent Catalyst | 28.2 | MTA | 2763 | Collection, Storage, Transportation and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 5 | Spent Carbon | 28.3 | MTA | 468 | Collection, Storage, Transportation, and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 6 | Off- Specification Product | 28.4 | MTA | 600 | Collection, Storage, Transportation, and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 7 | Process Residue & Waste | 36.1 | MTA | 15125 | Collection, Storage, Transportation, and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility |
| 8 | Spent Organic Solvent | 20.2 | MTA | 47586 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission or applied with valid CCA after making MOU |
| 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | MTA | 18553 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission or applied with valid CCA after making MOU |
| 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | MTA | 37869 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. |



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| Sr. No. | Name of Hazardous Waste | Waste Category No. | UOM | Total Hazardous Waste Quantity | Mode of disposal |
|---|---|---|---|---|---|
| 11 | CuCl Cake | 8.2 | MTA | 52 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. |
| 12 | Ammonium Salt | A-10 | MTA | 1717 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 13 | Potassium Salt | B-36 | MTA | 2572 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 14 | Sodium Salt | B-36 | MTA | 4402 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 15 | Zinc Compound | 6.1 | MTA | 44 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 16 | Hydrofluoricsilic acid (15-40%) | Sch II - Class C - C2 | MTA | 4000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 17 | Sulphuric acid (30-95%) | B-15 | MTA | 90382 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 18 | Hydrochloric Acid (10 - 33%) | B-15 | MTA | 411553 | Collection, Storage, Transportation, Sell to Actual User / end user having rule-9 applied with valid CCA after making MOU or converted in to the Calcium Chloride and sold to actual users/ disposed off in deep sea. |
| 19 | Sodium Hypochlorite | B-7 | MTA | 13875 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | MTA | 2593 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |



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| Sr. No. | Name of Hazardous Waste | Waste Category No. | UOM | Total Hazardous Waste Quantity | Mode of disposal |
|---|---|---|---|---|---|
| 21 | Calcium Fluoride | B-10 | MTA | 5844 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 22 | Calcium Chloride | B-10 | MTA | 165 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 23 | Sodium methoxide Solution | C7 | MTA | 120 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 24 | Phosphorus trichloride | B-35 | MTA | 934 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 25 | Gypsum (CaSO4) | 38.1 | MTA | 162400 | Collection, Storage, Transportation and Disposal by sending to Cement industries or Actual Users having rule-9 applied with valid CCA after making MOU or co-processing or pre-processing facility |
| 26 | Aluminium trifluoride | 36.1 | MTA | 1000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | MTA | 1500 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | MTA | 2802 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 29 | Fluoroform (R23) | 28.1 | MTA | 240 | Collection, Storage, In-house treatment through thermal oxidizer/transportation and disposal at approved CHWIF/transportation , treatment through thermal oxidizer at SRF Limited, Bhiwadi/pre-processing/co-processing / CBMWTF having rotary kiln incinerator / |



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| Sr. No. | Name of Hazardous Waste | Waste Category No. | UOM | Total Hazardous Waste Quantity | Mode of disposal |
|---|---|---|---|---|---|
| | | | | | authorized end user with rule-9 applied after making MOU. |
| 30 | Inorganic Sludge Generation from Calcium Chloride Plant | 35.3 | MTA | 2034 | Collection, Storage, Transportation and Disposal at approved TSDF |
| 31 | Caustic lye | Sch II - Class C - C2 | MTA | 36 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 32 | Ash from Thermal Oxidizer and flue gas cleaning residue | 37.2 | MTA | 40 | Collection, storage, /transportation / disposed to TSD/CHWIF. |
| 33 | Exhaust air and gas cleaning residue (Mixed/lean Acid generated from Scrubber of Thermal Oxidizer) | 35.1 | MTA | 1908 | Collection, Storage, Transportation and Disposal at approved CHWIF or co-processing or pre-processing facility. |
| 34 | Insulation waste | - | MTA | 300 | Collection, Storage, Transportation and Disposal at approved TSDF |



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# ANNEXURE – 20

## DETAIL OF HAZARDOUS (SOLID) WASTE GENERATION &DISPOSAL

| S. No. | Name of Hazardous Waste | Waste Category No. | UOM | Disposal Limit as per CC&A MTPA | Total Generation quantity MTPA | Total Disposal quantity MTPA | Mode of disposal |
|---|---|---|---|---|---|---|---|
| 1 | Chemical sludge from wastewater treatment | 35.3 | MTA | 3265 | 2740.53 | 2750.53 | Collection, Storage, Transportation and disposal at approved TSDF or pre-processing/co-processing facility. |
| 2 | Spent Oil | 5.1 | MTA | 600 | 7.37 | 8.37 | Collection, Storage, Reuse, Transportation and disposal by sending to authorized recycler/ refiners. |
| 3 | Discarded containers / barrels / liners used for hazardous wastes/chemicals | 33.1 | MTA | 5428 | 792.31 | 790.91 | Collection, Storage, decontamination/detoxification, reuse, Transportation and disposal by sending to authorized decontamination facility. |
| 4 | Spent Catalyst | 28.2 | MTA | 2763 | 33.58 | 34.58 | Collection, Storage, Transportation and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 5 | Spent Carbon | 28.3 | MTA | 468 | 0.00 | 0.00 | Collection, Storage, Transportation, and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 6 | Off- Specification Product | 28.4 | MTA | 600 | 0.00 | 0.00 | Collection, Storage, Transportation, and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility. |
| 7 | Process Residue & Waste | 36.1 | MTA | 15125 | 9540.86 | 9532.77 | Collection, Storage, Transportation, and disposal at approved TSDF/ CHWIF or co-processing or pre-processing facility |
| 8 | Spent Organic Solvent | 20.2 | MTA | 47586 | 37294.52 | 37294.52 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission or applied with valid CCA after making MOU |



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| S. No. | Name of Hazardous Waste | Waste Category No. | UOM | Disposal Limit as per CC&A MTPA | Total Generation quantity MTPA | Total Disposal quantity MTPA | Mode of disposal |
|---|---|---|---|---|---|---|---|
| 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | MTA | 18553 | 5098.47 | 5166.04 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission or applied with valid CCA after making MOU |
| 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | MTA | 37869 | 28830.07 | 29606.42 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. |
| 11 | CuCl Cake | 8.2 | MTA | 52 | 14.78 | 14.78 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. |
| 12 | Ammonium Salt | A-10 | MTA | 1717 | 51.79 | 51.79 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 13 | Potassium Salt | B-36 | MTA | 2572 | 267.29 | 341.29 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 14 | Sodium Salt | B-36 | MTA | 4402 | 4035.37 | 4035.37 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 15 | Zinc Compound | 6.1 | MTA | 44 | 16.89 | 16.89 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 16 | Hydrofluoricsilic Acid (15-40%) | Sch II - Class C - C2 | MTA | 4000 | 2785.75 | 2793.95 | Collection, Storage, Transportation and Disposal by sending to authorized Actual |



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| S. No. | Name of Hazardous Waste | Waste Category No. | UOM | Disposal Limit as per CC&A MTPA | Total Generation quantity MTPA | Total Disposal quantity MTPA | Mode of disposal |
|---|---|---|---|---|---|---|---|
| | | | | | | | users/end-user having rule-9 applied with valid CCA after making MOU |
| 17 | Sulphuric acid (30-95%) | B-15 | MTA | 90382 | 41259.99 | 40888.65 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 18 | Hydrochloric Acid (10 - 33%) | B-15 | MTA | 411553 | 266171.36 | 194346.92 | Collection, Storage, Transportation, Sell to Actual User / end user having rule-9 applied with valid CCA after making MOU or converted in to the Calcium Chloride and sold to actual users/ disposed off in deep sea. |
| 19 | Sodium Hypochlorite | B-7 | MTA | 13875 | 7433.06 | 7249.56 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | MTA | 2593 | 1052.93 | 1052.93 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 21 | Calcium Fluoride | B-10 | MTA | 5844 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 22 | Calcium Chloride | B-10 | MTA | 165 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 23 | Sodium methoxide Solution | C7 | MTA | 120 | 37.81 | 37.81 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at |



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| S. No. | Name of Hazardous Waste | Waste Category No. | UOM | Disposal Limit as per CC&A MTPA | Total Generation quantity MTPA | Total Disposal quantity MTPA | Mode of disposal |
|---|---|---|---|---|---|---|---|
| | | | | | | | approved TSDF/CHWIF or co-processing or pre-processing |
| 24 | Phosphorus trichloride | B-35 | MTA | 934 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 25 | Gypsum (CaSO4) | 38.1 | MTA | 162400 | 129623.01 | 129103.01 | Collection, Storage, Transportation and Disposal by sending to Cement industries or Actual Users having rule-9 applied with valid CCA after making MOU or co-processing or pre-processing facility |
| 26 | Aluminium Trifluoride | 36.1 | MTA | 1000 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | MTA | 1500 | 330.99 | 330.99 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | MTA | 2802 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 29 | Fluoroform (R23) | 28.1 | MTA | 240 | 30.18 | 29.35 | Collection, Storage, In-house treatment through thermal oxidizer/transportation and disposal at approved CHWIF/transportation , treatment through thermal oxidizer at SRF Limited, Bhiwadi/pre-processing/co- |



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| S. No. | Name of Hazardous Waste | Waste Category No. | UOM | Disposal Limit as per CC&A MTPA | Total Generation quantity MTPA | Total Disposal quantity MTPA | Mode of disposal |
|---|---|---|---|---|---|---|---|
| | | | | | | | processing / CBMWTF having rotary kiln incinerator / authorized end user with rule-9 applied after making MOU. |
| 30 | Inorganic Sludge Generation from Calcium Chloride Plant | 35.3 | MTA | 2034 | 1523.69 | 1523.69 | Collection, Storage, Transportation and Disposal at approved TSDF |
| 31 | Caustic lye | Sch II - Class C - C2 | MTA | 36 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 applied with valid CCA after making MOU |
| 32 | Ash from Thermal Oxidizer and flue gas cleaning residue | 37.2 | MTA | 40 | 0.00 | 0.00 | Collection, storage, /transportation / disposed to TSD/CHWIF. |
| 33 | Exhaust air and gas cleaning residue (Mixed/lean Acid generated from Scrubber of Thermal Oxidizer) | 35.1 | MTA | 1908 | 0.00 | 0.00 | Collection, Storage, Transportation and Disposal at approved CHWIF or co-processing or pre-processing facility. |
| 34 | Insulation waste | - | MTA | 300 | 176.92 | 180.92 | Collection, Storage, Transportation and Disposal at approved TSDF |

## MONTHWISE SOLID WASTE GENERATION AND DISPOSAL

| Month | Name of Waste: Fly Ash | |
|---|---|---|
| | Generation Quantity (MT) | Disposal Quantity (MT) |
| Apr-23 | 2235 | 2313 |
| May-23 | 1124 | 1141 |
| Jun-23 | 1032 | 1021 |
| Jul-23 | 1134 | 1153 |
| Aug-23 | 1222 | 1201 |
| Sep-23 | 965 | 915 |
| Oct-23 | 1237 | 1312 |
| Nov-23 | 1148 | 1042 |



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| | | |
|---|---|---|
| **Dec-23** | 1071 | 1133 |
| **Jan-24** | 1499 | 1543 |
| **Feb-24** | 1743 | 1733 |
| **Mar-24** | 1296 | 1103 |
| **Total** | 15706 | 15611 |

## WASTE DISPOSAL
## SOLID WASTE SENT TO TSDF

| Sr. No. | Types of Waste | HW Category No. | Authorized Qty MT/Year | Disposal Quantity during year 2023-2024 (MT/Year) | Method of Disposal |
|---|---|---|---|---|---|
| 1 | Chemical sludge from wastewater treatment | 35.3 | 3265 | 2750.53 | Collection, Storage, Transportation and disposal at approved TSDF or pre-processing/co-processing facility. |
| 2 | Chemical sludge from wastewater treatment (MEE / ATFD Salt) | 35.3 | 37869 | 29606.42 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. |
| 3 | Inorganic Sludge | 35.3 | 2034 | 1523.69 | Collection, Storage, Transportation and Disposal at approved TSDF |
| 4 | Insulation waste | - | 300 | 180.92 | Collection, Storage, Transportation and Disposal at approved TSDF |



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# ANNEXURE – 21

## ANALYSIS REPORT FOR SOLID HAZARDOUS WASTE

| **First Monitoring** | | | |
|---|---|---|---|
| **Sampling Location: CETP sludge** | | | |
| **Sampling done by : Swarrnim Institute of Technology- Environmental Audit Team** | | | |
| **Parameter** | Test Method | Test Results | Unit |
| **pH (10 % Solution)** | IS:3025 (part-11)-1983 | 7.19 | - |
| **Moisture Content** | IS:15106 and IS:11465 | 6.9 | **%** |
| **Total Organic Compound** | APHA 2540 E | 898 | g/kg |
| **Total Inorganic Compound** | APHA 2540 E | 102 | g/kg |

| **Second Monitoring** | | | |
|---|---|---|---|
| **Sampling Location: CETP sludge** | | | |
| **Sampling done by : Swarrnim Institute of Technology- Environmental Audit Team** | | | |
| **Parameter** | Test Method | Test Results | Unit |
| **pH (10 % Solution)** | IS:3025 (part-11)-1983 | 8.29 | - |
| **Moisture Content** | IS:15106 and IS:11465 | 5.8 | **%** |
| **Total Organic Compound** | APHA 2540 E | 910 | g/kg |
| **Total Inorganic Compound** | APHA 2540 E | 105 | g/kg |



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| **Third Monitoring** | | | |
|---|---|---|---|
| **Sampling Location: CETP sludge** | | | |
| **Sampling done by : Swarrnim Institute of Technology- Environmental Audit Team** | | | |
| **Parameter** | Test Method | Test Results | Unit |
| **pH (10 % Solution)** | IS:3025 (part-11)-1983 | 9.17 | - |
| **Moisture Content** | IS:15106 and IS:11465 | 6.2 | **%** |
| **Total Organic Compound** | APHA 2540 E | 917 | g/kg |
| **Total Inorganic Compound** | APHA 2540 E | 106 | g/kg |



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# ANNEXURE – 22

## NOISE LEVEL DB (A) WITHIN THE PLANT PREMISES

**First Monitoring**

| Sr. No. | Location of Monitoring Station | Time | Noise level in dB | Permissible limit in dB* |
|---|---|---|---|---|
| | | | | During daytime |
| **1** | Near Main gate | 1:45pm | 51.2 | 75 |
| **2** | Near Admin. office | 2.00pm | 58.2 | 75 |
| **3** | Near ETP plant | 2.15pm | 68.9 | 75 |
| **4** | Near Boiler | 2.10pm | 72.5 | 75 |

**Second Monitoring**

| Sr. No. | Location of Monitoring Station | Time | Noise level in dB | Permissible limit in dB* |
|---|---|---|---|---|
| | | | | During daytime |
| **1** | Near Main gate | 1:45pm | 53.2 | 75 |
| **2** | Near Admin. office | 2.00pm | 59.2 | 75 |
| **3** | Near ETP plant | 2.15pm | 70.9 | 75 |
| **4** | Near Boiler | 2.10pm | 73.5 | 75 |



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# ANNEXURE – 23

## TOTAL POLLUTION LOAD

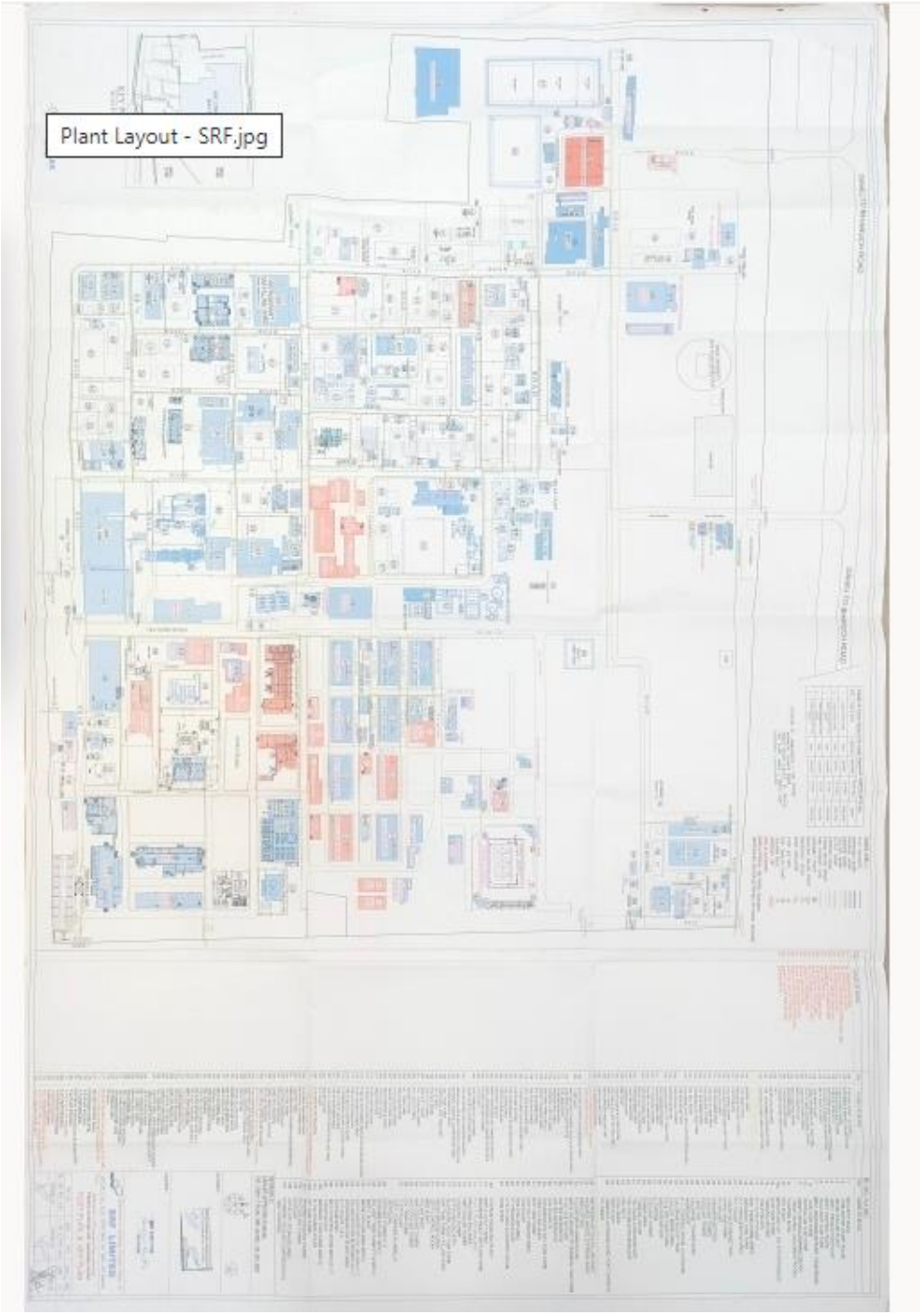
### WATER

| Sr. No. | Parameter | Avg. Result (mg/L) | Kg/day |
|---|---|---|---|
| 1 | TSS | 41.33 | 64.18 |
| 2 | BOD | 52.00 | 80.76 |
| 3 | COD | 22.33 | 34.78 |
| 4 | AMMONICAL NITROGEN | 12.63 | 19.61 |



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# ANNEXURE –24
## SITE PLAN






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# ANNEXURE –25

## ISO CERTIFICATE

BUREAU VERITAS

Bureau Veritas Certification

# SRF LIMITED

## (FLUOROCHEMICALS BUSINESS & SPECIALTY CHEMICALS BUSINESS)

SRF

**HEAD OFFICE:** BLOCK-C, GREENWOOD CITY, SECTOR - 45, GURUGRAM – 122 003, HARYANA, INDIA.

This is a multi-site certificate, additional site(s) are listed on the next page(s)

*Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above Organisation has been audited and found to be in accordance with the requirements of the Management System Standards detailed below.*

*Standards*

## ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018

*Scope of certification*

- **Marketing, Manufacturing, Stuffing of containers and Dispatch of:**
  - Refrigerant - R134a, R32, R125, R22
  - HFC 134a P (1, 1, 1, 2 – Tetrafluoroethane) / Norflurane / HFA – 134a / Dymel® 134a/P
  - HFC 134a Propellant Grade
  - Refrigerant Blends – R410A
  - Methyl Chloride, Methylene Chloride, Chloroform and Carbon Tetrachloride
  - Calcium Chloride
  - Trichloroethylene (TCE), Perchloroethylene (PCE)
  - Specialty Chemicals as intermediates and active substances in Pharmaceutical, Agrochemical and Polymer Industries
  - Hydrochloric Acid, Anhydrous Hydrochloric Acid, Anhydrous Hydrofluoric Acid, Dilute Hydrofluoric Acid, Sulphuric Acid and Sodium Hypochlorite
- Stuffing of R600a
- Periodic examination and testing of cylinders / tonners of Hydrogen fluoride, Mixture gas, R-134a, R22

Original cycle start date for ISO 9001 & ISO 14001: **18 April 2014**

Original cycle start date for ISO 45001: **28 May 2021**

Recertification cycle start date: **14 April 2023**

Subject to the continued satisfactory operation of the Organisation's Management System, this certificate is valid until: **17 April 2026**

Certificate No. **IND.23.5093/IM/U** Version: **1** Issue date: **14 April 2023**

***Signed on behalf of BVCH SAS UK Branch***
***Jagdheesh N. MANIAN***
***Director – CERTIFICATION, South Asia***
***Commodities, Industry & Facilities Division***

For certificate authenticity, click here
https://certcheck.ukas.com/

| | |
|---|---|
| ISO 9001 | IN043181 |
| ISO 14001 | IN043183 |
| ISO 45001 | IN043182 |

UKAS MANAGEMENT SYSTEMS 0008

*Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom*

*Local office: Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.*

*Pg 1 of 2*

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call **+ 91 22 6274 2000.**



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Bureau Veritas Certification

# SRF LIMITED

## (FLUOROCHEMICALS BUSINESS & SPECIALTY CHEMICALS BUSINESS)

SRF

*Standards*

# ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018

*Scope of certification*

| SITE | ADDRESS | SCOPE |
|---|---|---|
| HEAD OFFICE | BLOCK-C, GREENWOOD CITY, SECTOR - 45, GURUGRAM – 122 003, HARYANA, NDIA. | • **Marketing of:**<br>○ Refrigerant - R134a, R32, R125, R22<br>○ HFC 134a P (1, 1, 1, 2 – Tetrafluoroethane) / Norflurane / HFA – 134a / Dymel® 134a/P<br>○ HFC 134a Propellant Grade<br>○ Refrigerant Blends – R410A<br>○ Methyl Chloride, Methylene Chloride, Chloroform and Carbon Tetrachloride<br>○ Calcium Chloride<br>○ Trichloroethylene (TCE), Perchloroethylene (PCE)<br>○ Specialty Chemicals as intermediates and active substances in Pharmaceutical, Agrochemical and Polymer Industries<br>○ Hydrochloric Acid, Anhydrous Hydrochloric Acid, Anhydrous Hydrofluoric Acid, Dilute Hydrofluoric Acid, Sulphuric Acid and Sodium Hypochlorite |
| SITE-1 | D-2/1, GIDC PHASE-II, PCPIR, DAHEJ, BHARUCH – 392 130, GUJARAT, INDIA. | • **Manufacturing, Stuffing of containers and Dispatch of:**<br>○ Refrigerant - R134a, R32, R125, R22<br>○ HFC 134a P (1, 1, 1, 2 – Tetrafluoroethane) / Norflurane / HFA – 134a / Dymel® 134a/P<br>○ HFC 134a Propellant Grade<br>○ Refrigerant Blends – R410A<br>○ Methyl Chloride, Methylene Chloride, Chloroform and Carbon Tetrachloride<br>○ Calcium Chloride<br>○ Trichloroethylene (TCE), Perchloroethylene (PCE)<br>○ Specialty Chemicals as intermediates and active substances in Pharmaceutical, Agrochemical and Polymer Industries<br>○ Hydrochloric Acid, Anhydrous Hydrochloric Acid, Anhydrous Hydrofluoric Acid, Dilute Hydrofluoric Acid, Sulphuric Acid and Sodium Hypochlorite<br>• Stuffing of R600a<br>• Periodic examination and testing of cylinders / tonners of Hydrogen fluoride, Mixture gas, R-134a, R22 |

Certificate No. **IND.23.5093/IM/U** Version: **1** Issue date: **14 April 2023**

For certificate authenticity, click here
https://certicheck.ukas.com/

| | |
|---|---|
| ISO 9001 | IN043181 |
| ISO 14001 | IN043183 |
| ISO 45001 | IN043182 |

UKAS MANAGEMENT SYSTEMS 0008

***Signed on behalf of BVCH SAS UK Branch***
***Jagdheesh N. MANIAN***
***Director – CERTIFICATION, South Asia***
***Commodities, Industry & Facilities Division***

*Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom.*

*Local office: Bureau Veritas (India) Private Limited (Certification Business)*
*72 Business Park, Marol Industrial Area, MIDC Cross Road "C",*
*Andheri (East), Mumbai – 400 093, India.*

*Pg 2 of 2*

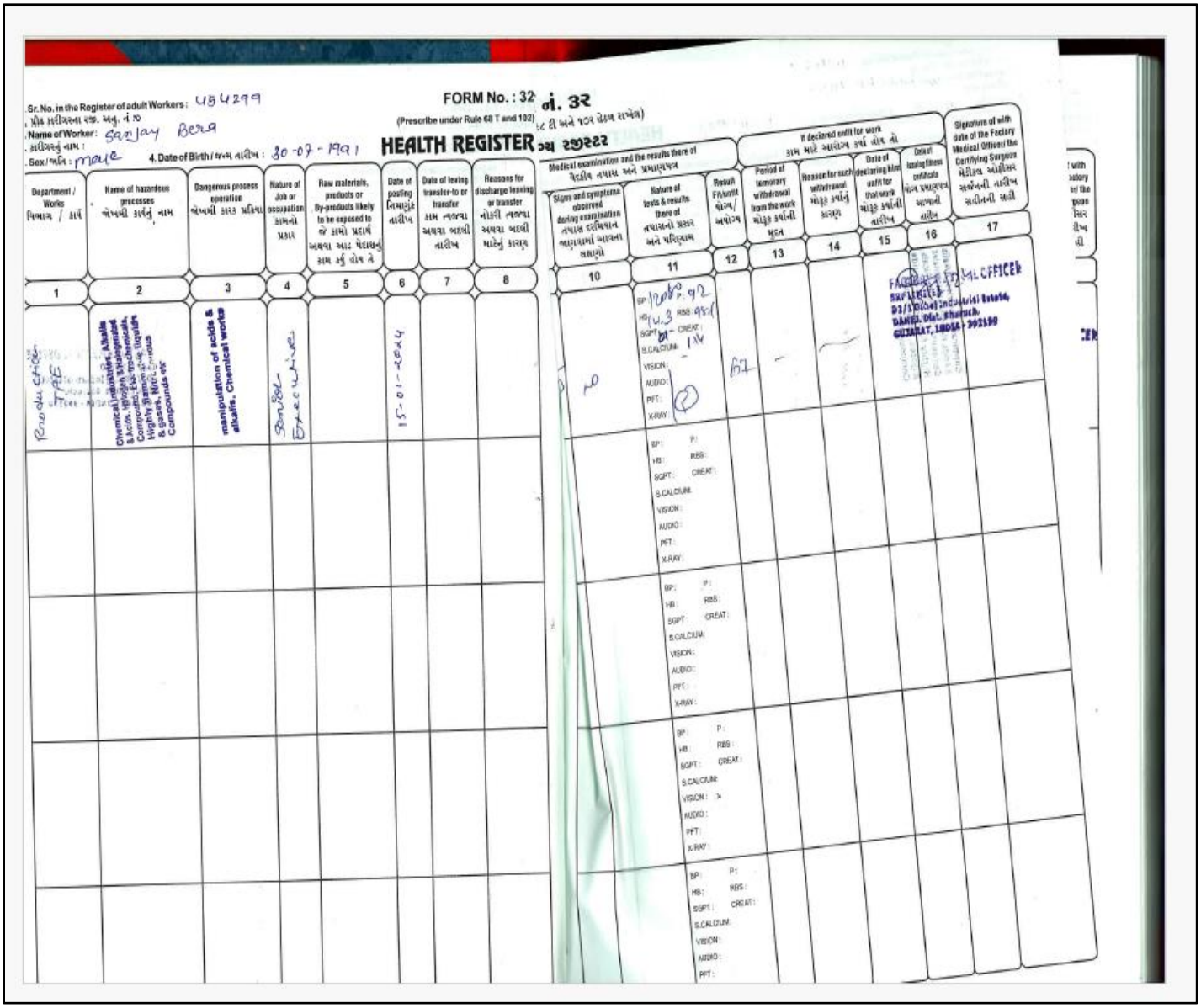
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
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# ANNEXURE –26

## DETAILS OF HEALTH RECORD



FORM No. : 32 નં. ૩૨

(Prescribe under Rule 68 T and 102) (૬૮ ટી અને ૧૦૨ હેઠળ સૂચવેલ)

HEALTH REGISTER ગ્રંથ સ્વાસ્થ્ય

Sr. No. in the Register of adult Workers : 454299

Name of Worker : Sanjay Bera

Sex / જાતિ : male 4. Date of Birth / જન્મ તારીખ : 30-07-1991

| Department / Works વિભાગ / કાર્ય | Name of hazardous processes ચોખમી કારનું નામ | Dangerous process operation ચોખમી કારક પ્રક્રિયા | Nature of Job or occupation કામનો પ્રકાર | Raw materials, products or By-products likely to be exposed to જે કામો પ્રકાર અથવા આડ પેદાશનું કામ કર્યું હોય તે | Date of posting નિમણૂંક તારીખ | Date of leving transfer-to or transfer કામ તજવા અથવા બદલી તારીખ | Reasons for discharge leaving or transfer નોકરી તજવા અથવા બદલી માટેનું કારણ |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Production Dept. TAE | Chemical Industries, Alkalis & Alkalis Manufactured, Acids, Nitrogen & Its Chemicals, Corrosives, Electrolytic Liquids, Highly Toxic Chemicals & Gases, Nitro & Amino Compounds etc | manipulation of acids & alkalis, Chemical works | Operator Executive | | 15-01-2024 | | |

| Medical examination and the results there of વૈદકીય તપાસ અને પ્રમાણપત્ર | | | If declared unfit for work કામ માટે અયોગ્ય કર્યા હોય તો | | | Signature of with date of the Factory Medical Officer/ the Certifying Surgeon મેડીકલ ઓફીસર સર્જનની તારીખ સહીની સહી |
|---|---|---|---|---|---|---|
| Signs and symptoms observed during examination તપાસ દરમિયાન જાણવામાં આવતા લક્ષણો | Nature of tests & results there of તપાસનો પ્રકાર અને પરિણામ | Result Fit/unfit યોગ્ય/ અયોગ્ય | Period of temporary withdrawal from the work કામ પરથી કર્યાની મુદત | Reason for such withdrawal કામ પરથી કર્યાનું કારણ | Date of declaring him unfit for that work કામ પરથી કર્યાની તારીખ | Date of issuing fitness certificate યોગ્ય પ્રમાણપત્ર આપ્યાની તારીખ | |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| ND | BP: 120/P. 92 HB: 14.3 RBS: 95 SGPT: CREAT: S.CALCIUM: VISION: AUDIO: PFT: X-RAY: | Fit | - | - | | FACTORY MEDICAL OFFICER SRF LIMITED D2/1,GIDC(2nd) Industrial Estate, DAHEJ, Dist. Bharuch. GUJARAT, INDIA - 392130 | |



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DOJ - 15/1/2024

# FORM NO. 33

(Prescribed under Rule 68-T and 102)
Certificate of Fitness of employment in hazardous process and operations
(TO BE ISSUED BY FACTORY MEDICAL OFFICER)

| | | | |
|---|---|---|---|
| 1 | Serial number in the register of adult workers<br>પુખ્ત વયના કામ. નો ક્રમ નંબર | : | A154299 |
| 2 | Name of the person examined<br>નામ | : | Sanjoy Bera |
| 3 | Father's Name<br>પિતાનું નામ | : | Late Rasbihari Bera |
| 4 | Sex<br>જાતિ | : | Male |
| 5 | Residence<br>રહેવાસ | : | H/No - 8/3, Kutigram, Gamaria, Baharagora, East Singbhum, Jharkhand - 832101 |
| 6 | Date of birth, if available<br>જન્મ તારીખ | : | 30/07/1991 |
| 7 | Name & Address of the factory<br>ફેક્ટરી નું નામ અને સરનામું | : | SRF Limited, Dahej |
| 8 | The worker is employed/ proposed<br>કામદારના કામ નો પ્રકાર | : | Sr. executive - Process |
| | (a) Hazardous process<br>ભયજનક પ્રક્રિયા ? | : | Yes |
| | (b) Dangerous operation<br>જોખમી પ્રક્રિયા ? | : | Yes |

I certify that I have personally examined the above named person whose identification marks are a black mole on right chest and who is desirous of being employed in above mentioned process/operation and that his/her age as can be ascertained from my examination is 32 years.

In my opinion he/she is fit for employment in the said manufacturing process/operation.

In my opinion he/she is unfit for employment in the said manufacturing process/operation for the reason _____. He/she is referred for further examination to the Certifying Surgeon.

The serial number of previous certificate is _____

Sanjoy Bera
Signature or left thumb impression of the person examined

Signature of the Certifying Surgeon

Stamp of the Factory Medical Officer with Name of the Factory

FACTORY MEDICAL OFFICER
SRF LIMITED
Dahej Industrial Estate,
GIDC, Dahej Bharuch,
GUJARAT, INDIA - 392130

| I certify that I examined the person mentioned above on (date of examination) | I extend this certificate unfit (if certificate is not extended, the period for which the worker is considered unfit for work is to be mentioned) | Signs & symptoms observed during examination | Signature of the factory medical officer with date |
|---|---|---|---|
| | | | |

Note: 1. If declared unfit, referance should be made immediately to the Certifying Surgeon.
2. Certifying Surgeon should communicate his findings to the occupier with 30 days of the receipt of this reference.



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# ANNEXURE –27

## DETAILS OF PLI POLICY

**HDFC ERGO General Insurance Company Limited**

sub-rule

| | |
|---|---|
| **Branch** | Ground Floor Eros Corporate Tower Nehru Place South Delhi, 110019. Tel.: +91-11-30294200 |

**Warranties :**

Warranted that there are no known losses and /or circumstances that may lead to losses or claims under this policy (except the claims and / or circumstances already reported to HDFC ERGO General Insurance Co. Ltd.)

This policy is issued basis the information and representations provided by or on behalf of the insured (whether by way of a proposal form or otherwise), and it is thus warranted that such information/representations are true, accurate, and complete, and that no other material information has been withheld.

If the policy document, schedule or endorsement contains any inadvertent error or omission in regards the information provided to us, you are requested to inform us within 15 days of receipt of the policy document so that we can correct any such error or omission.

I/ We hereby declare that though our aggregate turnover in any preceding financial year from 2017-18 onwards is more than the aggregate turnover notified under sub-rule (4) of rule 48, we are not required to prepare an invoice in terms of the provisions of the said sub-rule.

This is with reference to the KYC norms prescribed by the Authority, whereby this policy is being issued relying on the undertaking / power of attorney / letter of authorisation / Board resolution provided by the authorized signatory of your Entity. Should the signatory be not authorized to provide such a declaration, please inform the Company within 15 days from the date of receipt of this policy.

Broker Name : Prudent Insurance Brokers Pvt. Ltd.
Broker Code : 21038163



HDFC ERGO General Insurance Company Limited. IRDAI Reg.No.146 CIN : U66030MH2007PLC177117. Registered & Corporate Office: 1st Floor, HDFC House, 165/166 Backbay Reclamation, H.T.Parekh Marg, Churchgate, Mumbai - 400 020. UIN: IRDAN125CP0002V01200809 Customer Service Address: D 301, 3rd Floor, Eastern Business District (Magnet Mall), LBS Marg, Bhandup (West), Mumbai – 400078. Customer Service No.: +91 22 6754 6754 / +91 139 6754 6754 www.hdfcergo.com



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**HDFC ERGO General Insurance Company Limited**

## Premium & Coverage Statement

(Item. 9 of Schedule, Attached to and forming part of Policy No: **3133200263399612000**)

### 9.1 Premium Computation

| Premium Details | Amount (Rs.) |
|---|---|
| Net Premium | 10,887.00 |
| Integrated Tax 18% | 1,960.00 |
| Add: Contribution to Environment Relief Fund | 10,887.00 |
| Total Premium | 23,734.00 |
| Invoice Number : | 4032801181381 |
| GSTN : | 06AAACS0206P1ZH |
| **Place of Supply** | **Haryana** |
| **SAC Code** | **997139** |

### 9.2 Insurance Limits & Excess

**Insurance Limits**

| Details | Amount (Rs.) |
|---|---|
| Each Accident Insurance Limit | 50,000,000.00 |
| Aggregate Insurance Limit | 150,000,000.00 |

**Excess**

| | |
|---|---|
| **Compulsory Excess** | Na |
| **Voluntary Excess** | Na |



HDFC ERGO General Insurance Company Limited. IRDAI Reg.No.146 CIN : U66030MH2007PLC177117. Registered & Corporate Office: 1st Floor, HDFC House, 165/166 Backbay Reclamation, H.T.Parekh Marg, Churchgate, Mumbai - 400 020. UIN: IRDAN125CP0002V01200809 Customer Service Address: D 301, 3rd Floor, Eastern Business District (Magnet Mall), LBS Marg, Bhandup (West), Mumbai - 400078. Customer Service No.: +91 22 62134234 (+91-130 6234 6234 www.hdfcergo.com



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# ANNEXURE – 28

## ON-SITE EMERGENCY PLAN

| | Doc Title | ERP - Cover Page | Prepared By | Reviewed By | Approved By |
|---|---|---|---|---|---|
| SRF | S.O.P No. | EHS/SOP-03/ERP | Asst MGR - EHS (FCB) | AVP - EHS (FCB & SCB) | EVP & Site Head |
| | Issue: 02 | Revision: 12 | Page : 01 of 01 | Revision Date: 28/08/2023 | Next Review Date : 27/08/2024 |

## SRF Limited, Dahej

## On- Site Emergency Response Plan

[SCHEDULE –8-A]

Gujarat Factory Rules 68-J/12/(1)

| SRF - SBU - Works | SRF - SBU - HO |
|---|---|
| Plot No. D-2/1,<br>GIDC, Phase - II, PCPIR, Dahej,<br>Tal - Vagra,<br>Dist - Bharuch - 392130,<br>Gujarat | Block C,<br>Sector - 45,<br>Gurgaon - 122001,<br>Haryana |
| India | India |
| Phones: 91-2641-289201/ 202 | Phone : 91-124- 4654613 |
| e-mail: Vikas.yadav1@srf.com | - |

Website : www.srf.com

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Doc.NO: EHS/SOP-03/ERP
Issue/Revision: 02/12
Revision Date: 28.08.2023
Next Review Date:29.08.2024

# Amendment ERP

## Amendment History

| S. No. | SOP No. / Document number | Reason for change | Requested By | Revision No. | Date of Revision | Approved By |
|---|---|---|---|---|---|---|
| 1 | Full Document | Full Document modified in line with Schedule 8A. | Manager-EHS | 1 | 5.11.12 | Yogesh Mittal |
| 2 | Full Document | Full Document modified in line with Schedule 8A. | AVP - EHS | 2 | 01.10.13 | Yogesh Mittal |
| 3 | Full Document | Full Document modified in line with Schedule 8A. | Manager-EHS | 3 | 01.07.15 | Yogesh Mittal |
| 4 | Full Document | Full Document modified in line with Schedule 8A. | Manager-EHS | 4 | 30.12.15 | Dhananjay Ranade |
| 5 | Full Document | Full Document modified in line with Schedule 8A. | Manager-EHS | 5 | 01.07.16 | Dhananjay Ranade |
| 6 | Full Document | Full Document modified in line with Schedule 8A. | Manager-EHS | 6 | 01.07.16 | Dhananjay Ranade |
| 7 | Full Document | Full Document modified in line with Schedule 8A. | Manager-EHS | 7 | 07.12.17 | Dhananjay Ranade |
| 8 | Full Document | Full Document modified in line with Schedule 8A. | AVP - EHS | 8 | 01.04.18 | Ravishankar Sharma |
| 9 | Full Document | Full Document modified in line with Schedule 8A. | AVP - EHS | 9 | 18.07.19 | Ravishankar Sharma |
| 10 | Full Document | Full Document modified in line with Schedule 8A. | AVP - EHS | 10 | 01.05.21 | Yogesh Mittal |
| 11 | Full Document | Full Document modified in line with Schedule 8A. | Asst. Manager-EHS | 11 | 29.08.22 | Harendra Singh Dagur |



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| | | | | | |
|---|---|---|---|---|---|
| SRF | Doc Title | ERP - Schedule 8 A | Prepared By | Reviewed By | Approved By |
| | S.O.P No. | EHS/SOP-03/ERP | Asst MGR - EHS (FCB) | AVP - EHS (FCB & SCB) | EVP & Site Head |
| | Issue: 02 | Revision: 12 | Page: 01 of 02 | Revision Date: 28/08/2023 | Next Review Date : 27/08/2024 |

**Schedule - 8 A, Under rule - 68 - J (12) (1) of Gujarat Factories Rules 1963**
**Schedule -11, Under Rule - 13 (1) of MSIHC Rules 1989 (2000)**

| | | | |
|---|---|---|---|
| 1 | Name and address of persons furnishing the information | | **Factory :**<br>SRF Limited<br>Plot D 2/1, Phase –II,<br>PCPIR, Dahej,<br>Bharuch - 392130, Gujarat |
| | | | **Occupier :**<br>Mr. Pramod Gopaldas Gujarathi<br>26,Yash Banglows, Dharmasi Park,<br>Opp. GIDC Guest House, P.O.-GIDC Vapi, Gujarat - 396195 |
| | | | Factory Manager:<br>Mr. Sanjay Patidar<br>SRF Limited<br>Plot D 2/1, Phase –II,<br>PCPIR, Dahej,<br>Bharuch - 392130, Gujarat |
| 2 | Key personnel of the organisation and responsibilities assigned to them in case of an emergency | | Pl. refer **Chapter III** & **Annexure 14, 15, 16, 17 & 18.** |
| 3 | Outside organizations if involved in assisting during on-site emergency | | Pl. refer **Chapter IV, V & VI.** |
| | a) | Type of accidents | |
| | b) | Responsibility assigned | |
| 4 | Details of liaison arrangement between the organization | | Pl. refer **Chapter IV, V & VI.** |
| 5 | Information on the preliminary Hazard Analysis | | Pl. refer **Annexure 4, 5, 6 & 7.** |
| | a) | Type of accidents | |
| | b) | Hazards | |
| | c) | System elements or events that can lead to a major accident Hazards | |
| | d) | Safety relevant components | |
| 6 | Details about the site | | - |
| | a) | Location of dangerous substances | Pl. refer **Annexure 1, 2 & 3** |
| | b) | Seat of key personnel | Pl. refer **Annexure 14, 15 & 16** |
| | c) | Emergency Control Room | Pl. refer **Annexure 20** |
| 7 | Description of hazardous chemicals at plant site | | - |
| | a) | Chemicals (Qualification and toxicological data) | Pl. refer **Annexure 5** |
| | b) | Transformation if any which could occur | Pl. refer **Annexure 4 & 6** |
| | c) | Purity of hazardous chemicals | Industrial Grade Material |



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| | Doc Title | ERP - Schedule 8 A | Prepared By | Reviewed By | Approved By |
|---|---|---|---|---|---|
| SRF | S.O.P No. | EHS/SOP-03/ERP | Asst MGR - EHS (FCB) | AVP - EHS (FCB & SCB) | EVP & Site Head |
| | Issue: 02 | Revision: 12 | Page: 02 of 02 | Revision Date: 28/08/2023 | Next Review Date : 27/08/2024 |

| | | | |
|---|---|---|---|
| 8 | Likely dangers to the plant | | Pl. refer **Annexure 4, 6 & 7** |
| 9 | Enumerate effects of | | - |
| | i) | Stress and strain caused during normal operations. | Pl. refer **Chapter VII** |
| | ii) | Fire and explosion inside the plant and effect if any, of fire and explosion out side. | Pl. refer **Annexure 4, 5, 6, 10, 11 & 12** |
| 10 | Details regarding | | |
| | i) | Warning, alarm and safety and security systems. | Pl. refer **Annexure 26** |
| | ii) | Alarm and hazard control plans in line with disaster control and hazard control planning ensuring the necessary technical and organizational precautions | Pl. refer **Annexure 26** |
| | iii) | Reliable measuring instruments, control units and servicing of such equipments | Pl. refer **Annexure 6 & 7** |
| | iv) | Precautions in designing of the foundation and load bearing parts of the building | As per prevailing IS standards. All the structures, foundations of equipment, pedestals, frames, etc. are designed and erected as per relevant standards and codes of practices. Most of the foundations are erected on piling and all the Storage Tanks constructed on piling foundations. |
| 11 | Details of communication facilities available during emergency and those required for and off-site emergency | | Pl. refer **Annexure 27 & 28** |
| 12 | Details of fire fighting and other facilities available and those required for an off site emergency | | Pl. refer **Annexure 21** |
| 13 | Details of first-aid and hospital services available and its adequacy | | Pl. refer **Annexure 22** |
| 14 | Details of numbers for contact on off-site emergency | | Please refer **Annexure 28**, "List of external telephone". |



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# ANNEXURE – 29

## The details in respect of Case/complaints under the Water Act-74, the Air Act-81 & the EPA-86

| | Show cause notice issued in FY 23-24 | | | |
|---|---|---|---|---|
| Sr. No. | Reference No. | Date | Compliance Letter | Status as on 31-Mar-24 |
| 1 | SCN Outward No. 739744 | 21/04/2023 | Letter dated 08/04/2023 | Complied and Closed |
| 2 | SCN Outward No. 785330 | 04/03/2024 | Letter dated 15/03/2024 | Complied and Closed |



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# ANNEXURE –30

## COMPLIANCE REPORT

### COMPLIANCE REPORT OF CONSOLIDATED CONSENT AND AUTHORISATION

<table>
<tr><td colspan="3">CCA Letter No. GPCB/ BRCH-B/ CCA-38(19)/ ID-24521/678954, dated 26/07/2022</td></tr>
<tr><td>Sr. No.</td><td>Conditions<br>Consent Order No. AWH-119079 date of issue 02/06/2022</td><td>Compliance Status</td></tr>
<tr><td>1</td><td>The list of proposed products to be manufactured shall be as follows:<br>Name of the Products along with Quantity: -
<table>
<tr><th>Sr. No.</th><th>Name of Product</th><th>Total Proposed Capacity (MT/Annum)</th><th>Total Production</th></tr>
<tr><td>1</td><td>Trifluoro Acetic Acid</td><td>2000</td><td>1677.46</td></tr>
<tr><td>2</td><td>Speciality Products</td><td></td><td></td></tr>
<tr><td>i</td><td>Tetrafluorobenzyl Alcohol</td><td rowspan="16">9900</td><td rowspan="16">8300.66</td></tr>
<tr><td>ii</td><td>Ethyldifluoroacetate</td></tr>
<tr><td>iii</td><td>Ethyltrifluroacetate</td></tr>
<tr><td>iv</td><td>Ethyltrifluoroacetoacetate</td></tr>
<tr><td>v</td><td>Amino crotonate</td></tr>
<tr><td>vi</td><td>Trifluoroacetic anhydride</td></tr>
<tr><td>vii</td><td>Pentafluorobenzoic Acid</td></tr>
<tr><td>viii</td><td>Pyrazole Acid</td></tr>
<tr><td>ix</td><td>Chloro trichloro Methyl – Cyclopentene</td></tr>
<tr><td>x</td><td>2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline</td></tr>
<tr><td>xi</td><td>Fluoromethyl ester</td></tr>
<tr><td>xii</td><td>Diphenylphenol</td></tr>
<tr><td>xiii</td><td>Tetrafluoropropene – 1234yf</td></tr>
<tr><td>xiv</td><td>Isobutyl Acetophenon</td></tr>
<tr><td>xv</td><td>2-Bromo-5-fluorobenzotrifluoride</td></tr>
<tr><td>xvi</td><td>2,2-Difluroethylamine</td></tr>
<tr><td>xvii</td><td>2,3-Dichloro-5-trifluoromethyl-pyridine</td></tr>
</table></td><td>The actual production and power generation is well within the stipulated limit.</td></tr>
</table>



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| | | | | | | |
|---|---|---|---|---|---|---|
| | xviii | N[1-{6-Chloro-3-pyridinyl) methyl)-2(1H)-pyridinylidene]-2,2,2, trifluoroacetamide | | | | |
| | xix | (N-(4-fluorophenyl)-2-hydroxy-N-isopropyl-acetamide | | | | |
| | 3 | 1,1,2,2-Tetrafluoroethyl Methyl Ether | 3000 | 1931.25 | | |
| | 4 | Hexafluoropropylene | 500 | 0.00 | | |
| | 5 | Ethyl Difluoroacetoacetate | 300 | 0.00 | | |
| | 6 | Difluoromethanesulphonlychloride | 100 | 0.00 | | |
| | 7 | 3-Trifluoromethylacetophenone | 1000 | 0.00 | | |
| | 8 | Trifluoromethylbenzamide | 1700 | 1001.70 | | |
| | 9 | TrifluoroMethyl-2-EthoxyVinyl Ketone | 1000 | 0.00 | | |
| | 10 | 2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester | 1500 | 743.17 | | |
| | 11 | Pentafluorophenol | 150 | 0.00 | | |
| | 12 | Monomethylhydrazine | 3500 | 2862.60 | | |
| | 13 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone) | 500 | 328.57 | | |
| | 14 | Bromopentafluorobenzene | 200 | 0.00 | | |
| | 15 | Methyl Hydroxy Pyrazole | 100 | 0.00 | | |
| | 16 | 5-Bromo-2-2-difluoro-1-3-benzodioxide | 500 | 0.00 | | |
| | 17 | Difluorobenzodioxole methyl ester | 20 | 0.00 | | |
| | 18 | 2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy) benzenamine | 500 | | | |
| | 19 | 2,4,5-Trifluorophenyl acetic acid | 50 | 10.55 | | |
| | 20 | Methyl-2- Fluoroacrylate | 50 | 0.00 | | |
| | 21 | Ethyl-Trifluoropyruvate | 50 | 0.00 | | |
| | 22 | 2,3-dichloro pyridine | 0 | 0 | | |
| | 23 | 5-Chloro-2,3-difluoropyridine | 600 | 0.00 | | |
| | 24 | 3-(2-Chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylic Acid | 3500 | 0.00 | | |
| | 25 | 4-methoxy cyclohexanone (4-MCH) | 600 | 203.24 | | |
| | 26 | 2 -Amino 3-Chloro 5-(trifluoromethyl) pyridine | 600 | 0.00 | | |



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| | | | | | | |
|---|---|---|---|---|---|---|
| | 27 | Hydrazine Hydrate | 3500 | 0.00 | | |
| | 28 | 2-methylsulfonyl-5-(trifluoromethyl)-1,3,4-thiadiazole | 600 | 179.67 | | |
| | 29 | 1,3 Benzodioxole | 500 | 0.00 | | |
| | **30** | **R&D Products** | 2000 | 1999.27 | | |
| | **31** | **Chlorinated Compounds** | | | | |
| | i | Trichloroethylene | 150000 | 138473.30 | | |
| | ii | Perchloroethylene | | | | |
| | iii | Methyl Chloride | | | | |
| | iv | Methylene dichloride | | | | |
| | v | Chloroform | | | | |
| | vi | Carbon tetrachloride | | | | |
| | 32 | Anhydrous Hydrofluoric acid | 40000 | 30798.56 | | |
| | 33 | Chlorotrifluoroethane (HCFC 133a) | 500 | 0.00 | | |
| | **34** | **HFC refrigerants** | | | | |
| | i | 1,1,1,2 Tetrafluroethane (HFC 134a) | 40000 | 33622.82 | | |
| | ii | Pentafluoroethane (HFC 125) | | | | |
| | iii | Difluoromethane (HFC - 32) | | | | |
| | iv | 1,1 difluoroethane (HFC-152a) | | | | |
| | v | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a) | | | | |
| | vi | Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404a) | | | | |
| | vii | Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R407c) | | | | |
| | viii | Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a) | | | | |
| | 35 | Butane (R600a) | 1000 | 301.64 | | |
| | 36 | Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22) | 500 | 0.00 | | |



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| | | | |
|---|---|---|---|
| 37 | Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME) | 500 | 0.00 |
| 38 | Hydrofluoric acid (20-70%) | 18446 | 5081.16 |
| 39 | Anhydrous Hydrochloric acid | 900 | 191.42 |
| 40 | Chlorodifluoromethane (R22) | 12000 | 4253.56 |
| 41 | Calcium Chloride | 120000 | 105135.73 |
| Total | | 422366 | **337096.321** |

| Sr No. | Captive Power Plant | Existing Capacity | Additional Capacity | Proposed Capacity |
|---|---|---|---|---|
| 1 | Captive Power Plant | 25 MW | - | 25 MW |

| | | |
|---|---|---|
| 2. | Specific Condition | |
| a) | Unit shall comply with all the provisions of ozone depleting Substances Regulations and Control rules, 2000 and its amendment from time to time. | We have been complying to Ozone Depleting substances (Regulation and Control) Rules, 2000 as per column (4) of Schedule I. We have identified Ozone Depleting Substances like Carbon tetrachloride (CTC) & Chloro-difluoromethane (HCFC-22) from our product list and being used as feedstock for manufacturing of other chemicals within the premises, as per Notification of Ministry of Environment, Forest and Climate Change on Ozone Depleting Substances (Regulations and Control) Amendment Rules dated 13th March, 2014. |
| b) | Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter | Noted and Complied. |



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| | | |
|---|---|---|
| c) | Unit shall comply with all the conditions stipulated by SEIAA / MoEF in the order of Environment Clearance issued vide letter no. SEIAA/GUJ/EC/5(f)/1538/2020 dated_15/12/2020. | Complied. Last Half yearly EC compliance report is submitted to MoEF on 31-may-2024 and the same is available on website. |
| d) | Unit shall sell out their hazardous waste to authorized endusers who is having authorization with valid CCA and rule 9 permission to receive this waste. Unit shall make MoU with such authorized endusers and submit MoU. | Complied. We are selling hazardous waste to authorized actual user or end users only. All the authorized actual/end users have applied/obtained permissions from concerned authorities under Rule-9 of the Hazardous and Other Waste Management and Transboundary Movement) Rules 2016. |
| e) | All the efforts shall be made to send hazardous waste to cement industry for Co- processing first & there after it shall be disposed through other option. | We have agreements with various cement industries (Ambuja cement, J K Lakshmi cement, Shree Cement, Ultratech Cement) for hazardous waste usage as AFR. |
| f) | Unit shall follow spent solvent management guideline framed by board and shall make MoU with outside distillation units, if any. Also submit the prescribed forms as per guideline. | Complied. We have MoUs with actual end users for spent solvent recycling/re-processing. |
| g) | Unit shall strictly follow the Solid Fuel guideline framed by Board and shall install APCM as per guideline. | We have installed lime dosing system as APCM in our solid fuel boilers. |
| h) | Unit shall follow coal handling guideline framed by Board and provide close ash handling facility. | 1) Coal is covered with tarpaulin during transportation.<br>2) Coal loading and unloading activity is being done in closed shed.<br>3) Handling and transportation of coal is through covered coal conveyers<br>4) Dust collectors are installed to abate the nuisance of dust.<br>5) Installation of two Silo for fly ash storage |



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|---|---|---|
| i) | Unit shall strictly follow the Fly Ash Notification for disposal of generated ash. | 100% Fly ash is sent to brick manufacturers/cement industry/in construction work. |
| j) | Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH. | Continuous Emission Monitoring System for effluent discharge and stacks emissions are installed in unit. An arrangement is also available for reflecting the online monitoring results on the company's server, which can be accessed by the GPCB on real time basis. |
| 3 | CONDITION UNDER WATER ACT: - | |
| 3.1 | The quantity of total water consumption shall not exceed 19413 KL/day as per below break up as mentioned in form D submitted for consent application under the water act-1974<br>(a) Domestic: 429 KL/Day<br>(b) Industrial: 18769 KL/Day<br>(c) Gardening: 215 KL/ Day<br>Total 19413 Kl/day | Average water consumption is 9292 KLD. |
| 3.2 | The Quantity of total water generation shall not exceed 9975 KL/day as per below break up as mentioned in form D submitted for consent application under the water act-1974<br>(a) Domestic: 340 KL/Day<br>(b) Industrial: 9635 KL/Day<br>Total: 9975 KL/day | Average wastewater generation from domestic and industrial is 217 KLD & 3204 KLD resp. |
| 3.3 | The quantity of the industrial effluent from the manufacturing process and other ancillary Industrial operations shall not exceed 9635 KL/Day, and the quantity of domestic wastewater (sewage) shall not exceed 340 KL/Day. | Average wastewater generation from domestic and industrial is 217 KLD & 3204 KLD resp. |
| 3.4 | 4024 KLD of process steam condensate collected in separate collection tank and reused in cooling tower/process. | Complied. Process Steam Condensate collected separately and reused in cooling tower. |



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<table>
<tr><td>3.5</td><td>3884 KLD of industrial effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) shall be sent to separate ETP (UF&RO including primary treatment). After treatment 3301 KLD the treated shall be reused in cooling tower/process and 583 KLD RO reject after confirming the GPCB discharge norms shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea.</td><td>Utility effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) treated in separate UF & RO System and the permeate is used in cooling tower.</td></tr>
<tr><td>3.6</td><td>In that 1727 KLD (Process Effluent + Washings) of industrial effluent shall be sent to ETP for primary, secondary and tertiary treatment and Multi Effect Evaporator (MEE) followed by Agitated Thin Film Dryer. After treatment the treated shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea.</td><td>Average 1044 KLD Process and Washing effluent treated in separate Effluent Treatment Plant having Primary, Secondary and Tertiary treatment & Multi Effect Evaporated (MEE) plant & ATFD. The treated effluent is sent for the disposal in to GIDC sewer line.</td></tr>
<tr><td>3.7</td><td>Total 2310 KLD treated (1727 KLD treated industrial effluent + 583 KLD RO reject after confirming the GPCB standard) shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea for final disposal at NIO designated points.</td><td>Average wastewater discharge for is 1553 KLD.</td></tr>
<tr><td>3.8</td><td>340 KLD of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season it shall be reuse in cooling tower/process.
<table>
<tr><td>PARAMETER</td><td>GPCB NORMS</td></tr>
<tr><td>pH</td><td>6.5 TO 9.0</td></tr>
<tr><td>Total Suspended Solids</td><td>< 100 mg/L</td></tr>
<tr><td>Fecal Coliform (Most probable number per 100 milliliter, MPN/100ml)</td><td>< 1000 MPN/100 ml</td></tr>
<tr><td>BOD (5 days at 20-degree C)</td><td>< 20 mg/L</td></tr>
</table></td><td>The sewage is treated in STP and used for gardening purpose. IN monsoon the treated sewage is re-used in cooling tower.<br><br>Average 217 KLD sewage is treated<br><br>The STP inlet and outlet quality is tested by NABL accredited laboratory on monthly basis.</td></tr>
</table>



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<table>
<tr><td>3.9</td><td colspan="2">The quality of treated effluent shall conform to the following standards prior to disposal GIDC Sewer Line - Dahej Vilayat Pipeline/Common Disposal System up to the sea for final disposal at NIO designated point.<br><table><tr><td>Parameters</td><td>Permissible Limit</td></tr><tr><td>pH</td><td>6 to 9</td></tr><tr><td>Temperature</td><td>Shall not exceed 5°C above the receiving water temperature.</td></tr><tr><td>Total Suspended Sollids</td><td>100 mg/Lit</td></tr><tr><td>Oil and Grease</td><td>10 mg/l</td></tr><tr><td>Phenolic Compounds (s C6H5OH</td><td>5 mg/l</td></tr><tr><td>Cynide (as CN)</td><td>0.2 mg/l</td></tr><tr><td>Fluorides</td><td>15 mg/l</td></tr><tr><td>Sulphides</td><td>5 mg/l</td></tr><tr><td>Ammonical Nitrogen</td><td>50 mg/l</td></tr><tr><td>Total Kjeldahl Nitrogen (TKN)</td><td>50 mg/l</td></tr><tr><td>Nitrate - Nitrogen</td><td>50 mg/l</td></tr><tr><td>Total Residual Chloride</td><td>1 mg/l</td></tr><tr><td>Arsenic (as As)</td><td>0.2 mg/l</td></tr><tr><td>Trivalent Chromium</td><td>2 mg/l</td></tr><tr><td>Chromium-Hexavalent</td><td>0.1 mg/l</td></tr><tr><td>Copper</td><td>3 mg/l</td></tr><tr><td>Lead (as Pb)</td><td>0.1 mg/l</td></tr><tr><td>Mercury (as Hg)</td><td>0.01 mg/l</td></tr><tr><td>Nickel</td><td>3 mg/l</td></tr><tr><td>Zinc</td><td>15 mg/l</td></tr><tr><td>Cadmium (as Cd)</td><td>0.05 mg/l</td></tr><tr><td>BOD (3 days at 27-degree C)</td><td>100 mg/l</td></tr><tr><td>COD</td><td>250 mg/l</td></tr><tr><td>Selenium [as Se]</td><td>0.05 mg/l</td></tr><tr><td>Vanadium</td><td>0.2 mg/l</td></tr><tr><td>Manganese [as Mn]</td><td>2 mg/l</td></tr><tr><td>Iron</td><td>3 mg/l</td></tr><tr><td>Bio-assay test</td><td>90% Survival of fish after 96 hrs in 100% effluent.</td></tr></table></td><td>The monthly monitoring of treated effluent by MoEF and NABL approved laboratory confirming the results well within the permissible limits.<br><br>The continuous monitoring system for COD, TN, TOC, Ammonical Nitrogen, pH, Flow and TSS before treated effluent disposal to GIDC, Common Network.</td></tr>
<tr><td colspan="2">CONDITION UNDER AIR ACT</td><td></td></tr>
<tr><td>4.1</td><td colspan="2">Condition No. 4.1 (of the CCA Amendment dated 22/02/2018) stands amended and shall be read as under,<br><table><tr><td>Sr. No.</td><td>Name Of Fuel</td><td>Total Quantity per day</td><td>Average Consumption</td></tr><tr><td>1</td><td>Coal</td><td>600 MT/Day</td><td>879</td></tr><tr><td>2</td><td>HSD</td><td>215 KL/day</td><td>8</td></tr><tr><td>3</td><td>Natural Gas [Alternate fuel instead of coal]</td><td>45000 Nm3/day</td><td>0</td></tr></table></td><td></td></tr>
</table>



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| | | | |
|---|---|---|---|
| 4 | Furnace Oil (LPD) | 142.5 KL/day | 0 |
| 5 | LSHS/LDO | 110 KL/day | 21 |
| | | | |

4.2 Condition No. 4.2 (of the CCA Amendment dated 22/02/2018) stands amended and shall be read as under,

The flue gas emission through stack attached to boiler / D.G.Sets / TPP shall conform to the following standard:

| Sr. No. | Stack Attached To | Stack Height (meter) | APCM | Pollutant | Permissible Limit |
|---|---|---|---|---|---|
| . | Boiler 35 TPH | 94 (Common Stack) | Electrostatic Precipitator + Scrubber | PM<br>SO2<br>NOx<br>Hg | 50 mg/Nm3<br>600 mg/Nm3<br>450 mg/Nm3<br>0.03 mg/Nm3 |
| . | Boiler 35 TPH | | | | |
| . | Boiler 60 TPH | | | | |
| . | DG Set 500 KW | 11 | - | PM<br>SO2<br>NOx | 150 mg/Nm3<br>100 ppm<br>50 ppm |
| . | DG Set 500 KW | 11 | - | | |
| . | DG Set 840 KW | 30 | - | | |
| . | DG Set 840 KW | 30 | - | | |
| . | TCE/PCE Plant Thermic fluid/ Fire Heaters No. 1 | 50 | Efficient Burner | | |
| . | TCE/PCE Plant Thermic fluid/ Fire Heaters No. 2 | 50 | Efficient Burner | | |
| 0. | HFC 134a Plant Thermic fluid/ Fire Heaters | 50 | Efficient Burner | | |
| 1. | AHF Plant Heater No. 1 (Thermic fluid/ Fire Heaters) | 46 | Efficient Burner | | |
| 2. | AHF Plant Drying System No. 1 | 35 | Cyclone Seperator /Bag Filter | | |
| 3. | AHF Plant Heater No. 2 (Thermic fluid/ Fire Heaters) | 46 | Efficient Burner | | |
| 4. | AHF Plant Drying System No. 2 (Thermic fluid/ Fire Heaters) | 35 | Cyclone Seperator /Bag Filter | | |
| 5. | Difluoromethan (HFC 32) Plant Hot Oil | 55 | Efficient Burner | | |

Complied. Flue gas emission monitoring carried out on monthly basis by MoEF and NABL approved laboratory and its results/report is submitted to GPCB RO, Bharuch



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| | Furnace (Thermic fluid/ Fire Heaters) | | | | | |
| 6. | Boiler 30 TPH | 63 | - | | | |
| 7. | Boiler 30 TPH | 63 | - | | | |
| 8. | DG Set 4200 kVA | 30 | - | | | |
| 9. | DG Set 4200 kVA | 30 | - | | | |
| 0. | DG Set 4200 kVA | 30 | - | | | |
| 1. | Boiler 17 TPH | 53 | - | | | |
| 2. | Dust Collectors | 11 | Bag Filter | Particulate Matter | 150 mg/Nm3 | |

4.3 Condition No. 3 (of the CCA Amendment dated 17/05/2018) stands amended and shall be read as under,

The process gas emission through various stack / vent of reactors, process vessels shall confirm to the following standards

Process gas emission monitoring carried out on monthly basis by MoEF and NABL approved laboratory and its results/report is submitted to GPCB RO, Bharuch are well within permissible limits.

| Stack | Stack Attach To | Air Pollution Control System | Stack height in Meter | AIR EMISSION | |
|---|---|---|---|---|---|
| | | | | POLLUTANT | CONCENTRATION |
| Existing Process Stack | | | | | |
| HF Plant Stack | | | | | |
| 1 | HF Plant Central Absorption System | Continuous water Circulation | 30 | HF | 6mg/NM3 |
| TCE/PCE Plant Stack | | | | | |
| 2 | TCE/PCE Plant (Central Absorption System) | Continuous Alkali Circulation | 20 | Cl2 | 9mg/NM3 |
| 3 | TCE/PCE Plant (Central Absorption System) | Continuous Water Circulation | 30 | HCl | 20mg/NM3 |
| HFC Plant Stack | | | | | |
| 4 | R134a Plant (Central Absorption System) | Continuous Water Circulation | 30 | HCl | 20mg/NM3 |
| | | | | HF | 6mg/NM3 |



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| Flourospeciality Plant Stacks | | | | | |
| 5 | Reactor / Vessel (10 Nos.) Central Absorption System | Continuous Water Circulation | 30 | HF | 6mg/NM3 |
| | | | | HCl | 20mg/NM3 |
| 6 | Reactor / Vessel (10 Nos.) Central Absorption System | Continuous Water Circulation | 30 | HCl | 20mg/NM3 |
| 7 | Reactor / Vessel (04 Nos.) Central Absorption System | Continuous Alkali Circulation | 20 | Cl2 | 9mg/NM3 |
| 8 | Reactor / Vessel (02 Nos.) Central Absorption System | Continuous Alkali Circulation | 20 | Br2 | 2mg/NM3 |
| 9 | Trifluoro Acetic Acid Central Absorption | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 10 | Ethyldifluoroacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 11 | Ethyltrifluroacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| 12 | Ethyltrifluoroacetoacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 13 | Pentafluorobenzoic Acid Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 14 | Pyrazole Acid Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 15 | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| 16 | Tetrafluoropropene – 1234yf Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |



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| 17 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 18 | Hexafluoropropylene Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 19 | Difluoromethanesulphonlychloride Central Absorption System** | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 20 | Trifluoromethyl benzamide Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 21 | Bromopentafluorobenzene Central Absorption System | Continuous Water + Alkali Circulation | . | Br2 | 2 mg/NM3 |
| 22 | 5-Bromo-2-2-difluoro-1-3-benzodioxide Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 23 | Difluorobenzodioxole methyl ester Central Absorption System** | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| 24 | Methyl-2- Fluoroacrylate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| 25 | CMS plant (Methylene dichloride, Chloroform, Carbon tetrachloride) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 26 | Chlorotrifluoroethane (HCFC 133a) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 27 | Pentafluoroethane (HFC 125) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 28 | Difluoromethane (HFC – 32) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |



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| | 29 | HCl Storage Tank Farm | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | 30 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | 31 | Flare Stack attached to Topramezone Plant | N.A. | 30 | - | - |
| | 32 | Chlorodifluoromethane (R22) plant Central Absorption System | Continuous Water Circulation | 30 | HF | 6 mg/NM3 |
| | | | | | HCL | 20 mg/NM3 |
| | 33 | Calcium Chloride Plant Scrubber | Continuous Water + Sodium Carbonate Solutions | 30 | CO2 | - |
| | 34 | Methyl Hydroxy Pyrazole | Continuous Water Circulation | 30 | HCL | 20 mg/NM3 |
| | 35 | TCE/PCE Acid tank farm area scrubber vent | Continuous Water Circulation | 11.7 | HCL | 20 mg/NM3 |
| | 36 | HFC134a Acid tank farm area scrubber vent | Continuous Water Circulation | 11.4 | HCL | 20 mg/NM3 |
| | 37 | DHF Scrubber | Continuous Water Circulation | 10 | HF | 6 mg/NM3 |

4.4 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

| Sr. No. | Parameters | Permissible Limit (microgram /M3) | |
|---|---|---|---|
| | | Annual | 24 Hours Average |
| 1. | Particulate Matter (PM10) | 60 | 100 |
| 2. | Particulate Matter (PM2.5) | 40 | 60 |
| 3. | Oxides of Sulphur (SOx) | 50 | 80 |
| 4. | Oxides of Nitrogen (NOx) | 40 | 80 |

• Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.



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<table>
<tr><td></td><td>• 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.</td><td></td></tr>
<tr><td>4.5</td><td>Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition as above.</td><td></td></tr>
<tr><td>5</td><td>CONDITIONS UNDER HAZARDOUS & OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016</td><td></td></tr>
<tr><td>5.1</td><td>Unit shall comply with provisions of Hazardous & Other Wastes (Management & Transboundary Movement) Rules-2016.</td><td></td></tr>
<tr><td>5.2</td><td>The condition No. 5 under authorization for Hazardous & other wastes of the CCA order No: AWH-104607, issued vide letter no. GPCB/ BRCH-B/ CCA-38(13)/ ID-15121/525661, dated 25/10/2019 is amended and shall now be read as under.
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Name of Haz. Waste</th><th rowspan="2">Category Number</th><th colspan="2">Facility</th></tr>
<tr><th>Total Hazardous Waste Quantity, MT/Yr</th><th>Mode of disposal</th></tr>
<tr><td>1</td><td>Chemical sludge from wastewater treatment</td><td>35.3</td><td>3265</td><td>Collection, Storage, Transportation and Disposal at approved TSDF or co-processing.</td></tr>
<tr><td>2</td><td>Spent Oil</td><td>5.1</td><td>600</td><td>Collection, storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners</td></tr>
<tr><td>3</td><td>Discarded containers / barrels / liners used for hazardous wastes/chemicals</td><td>33.1</td><td>5,428</td><td>Collection, storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners</td></tr>
<tr><td>4</td><td>Spent Catalyst</td><td>36.2</td><td>2,763</td><td>Collection, Storage, Transportation and Disposal at</td></tr>
</table>
</td><td>The hazardous waste generation quantity is well within allowable limit.<br><br>We are having valid membership certificate with TSDF and CHWIF.<br><br>We have MoU with actual/end users for using hazardous waste as raw material.<br><br>We have agreements with pre-processors and co-processors for using hazardous wastes as an AFR.</td></tr>
</table>



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| | | | | | | |
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| | | | | approved TSDF/CHWIF or co-processing or pre-processing. | | |
| 5 | Spent Carbon | 36.2 | 468 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | | |
| 6 | Off- Specification Product | 36.1 | 600 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | | |
| 7 | Process Residue & Waste | 36.1 | 15,125 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | | |
| 8 | Spent Organic Solvent | 20.2 | 47586 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission & valid CCA after making MOU. | | |
| 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | 18,553 | | | |
| 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | 37,504 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. | | |



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| 11 | CuCl Cake | 8.2 | 52 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | | |
| 12 | Ammonium Salt | A-10 | 1,717 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | | |
| 13 | Potassium Salt | B-36 | 445 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | | |
| 14 | Sodium Salt | B-36 | 4402 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF | | |



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| | | | | | | |
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| | | | | or co-processing or pre-processing | | |
| 15 | Zinc Compound | 6.1 | 44 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | | |
| 16 | Hydrofluoricsilic acid (15-40%) | Sch II - Class C - C2 | 4000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | | |
| 17 | Sulphuric acid (70-95%) | B-15 | 90382 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | | |
| 18 | Hydrochloric Acid (10 - 33%) | B-15 | 4,11,553 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid | | |



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| | | | | | | |
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| | | | | CCA after making MOU | | |
| 19 | Sodium Hypochlorite | B-7 | 13875 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | | |
| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | 2,593 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | | |
| 21 | Calcium Fluoride | B-10 | 5,844 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing | | |
| 22 | Calcium Chloride | B-10 | 165 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid | | |



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| | | | | | | |
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| | | | | CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing | | |
| 23 | Sodium methoxide Solution | C7 | 120 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing | | |
| 24 | Phosphorus trichloride | B-35 | 934 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | | |
| 25 | Gypsum (CaSO4) | 38.1 | 1,62,400 | Collection, Storage, Transportation and Disposal by sending to Cement industries or Actual Users having rule-9 permission & valid CCA after making MOU or co-processing or pre-processing facility | | |



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| 26 | Aluminium trifluoride | 36.1 | 1,000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | | |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | 1,500 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | | |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | 2,802 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | | |
| 29 | Fluoroform (R23) | 28.1 | 240 | Collection, Storage, In-house treatment through Thermal Oxidizer/ Transportation and Disposal at approved CHWIF. | | |
| 30 | Inorganic Sludge Generation from | 35.3 | 234 | Collection, Storage, | | |



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| | | Calcium Chloride Plant | | | Transportation and Disposal at approved TSDF | |
| | 31 | Caustic lye | Sch II - Class C - C2 | 36 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user | |
| | Unit shall ensure transportation of hazardous wastes through GPS mounted authorized vehicles with recording facility and online manifest system of the Board. | | | | | |
| 6 | All other conditions of the CCA order No: AWH-119079, issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ ID-24521/678954, dated 26/07/2022 shall remain same. | | | | | Complied. |

| **CCA Letter No. GPCB/BRCH-B/CCA-38 (21)/ID-24521/738542 Dated 06/04/2023** | | |
|---|---|---|
| Sr. No. | Conditions | Compliance Status |
| | This has reference to the CCA Amendment issued vide letter no. GPCB/BRCH-B/CCA-38(19)/ID-24521/678954 dated 26/07/2022 under the provision of the various Environmental Act/Rules, | |
| 2. | Specific Condition | |
| a) | Unit shall mentioned ZLD for wastewater generated from proposed CPP of capacity 20.1MW | Noted and Complied. |
| b) | Unit shall comply MoEF & CC's Notification dated 28/06/2018 and its subsequent amendment for thermal power plant. | Noted and Complied. |
| c) | Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter | Noted and Complied. |
| d) | Unit shall comply with all the conditions stipulated by SEIAA / MoEF in the order of Environment Clearance issued vide letter no. SEIAA/GUJ/EC/5(f)/1538/2020 dated_15/12/2020. | Complied. Last Half yearly EC compliance report is submitted to MoEF on 31-May-2024 and the same is available on website. |



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| e) | Unit shall sell out their hazardous waste to authorized end users who is having authorization with valid CCA and rule 9 permission to receive this waste. Unit shall make MoU with such authorized end users and submit MoU. | Complied. We are selling hazardous waste to authorized actual user or end users only. All the authorized actual/end users have applied/obtained permissions from concerned authorities under Rule 9 of the Hazardous and Other Waste Management and Transboundary Movement) Rules 2016. |
| f) | All the efforts shall be made to send hazardous waste to cement industry for Co-processing first & there after it shall be disposed through other option. | We have agreements with various cement industries (Ambuja cement, J K Lakshmi cement, Shree Cement, Ultratech Cement) for hazardous waste usage as AFR. |
| g) | Unit shall follow spent solvent management guideline framed by board and shall make MoU with outside distillation units, if any. Also submit the prescribed forms as per guideline. | Complied. We have MoUs with actual end users for |



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|---|---|---|
| | | spent solvent recycling/re-processing. |
| h) | Unit shall strictly follow the Solid Fuel guideline framed by Board and shall install APCM as per guideline. | We have installed lime dosing system as APCM in our solid fuel boilers. |
| i) | Unit shall follow coal handling guideline framed by Board and provide close ash handling facility. | 1) Coal is covered with tarpaulin during transportation .<br>2) Coal loading and unloading activity is being done in closed shed.<br>3) Handling and transportation of coal is through covered coal conveyers<br>4) Dust collectors are installed to abate the nuisance of dust.<br>5) Installation of two Silo for fly ash storage |
| k) | Unit shall strictly follow the Fly Ash Notification for disposal of generated ash. | 100% Fly ash is sent to brick manufacturers/cement industry/in construction work. |



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| l ) | Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH. | Continuous Emission Monitoring System for effluent discharge and stacks emissions are installed in unit. An arrangement is also available for reflecting the online monitoring results on the company's server, which can be accessed by the GPCB on real time basis. |
| 3 | CONDITION UNDER WATER ACT: - | |
| 3.1 | The quantity of total water consumption shall not exceed 20984 KL/day as per below break up as mentioned in form D submitted for consent application under the water act-1974<br>(a) Domestic: 429 KL/Day<br>(b) Industrial: 20340 KL/Day<br>Total 20984 Kl/day | Average water consumption is 9292 KLD. |
| 3.2 | The Quantity of total water generation shall not exceed 10654 KL/day as per below break up as mentioned in form D submitted for consent application under the water act-1974<br>(a) Domestic: 340 KL/Day<br>(b) Industrial: 10314KL/Day<br>Total: 10654KL/day | Average wastewater generation from domestic and industrial is 217 KLD & 3204 KLD resp. |
| 3.3 | The quantity of the industrial effluent from the manufacturing process and other ancillary Industrial operations shall not exceed 10314 KL/Day, and the quantity of domestic wastewater (sewage) shall not exceed 340 KL/Day. | Average wastewater generation from domestic and industrial is 217 KLD & |



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| | | |
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| | | 3204 KLD resp. |
| 3.4 | 4024 KLD of process steam condensate collected in separate collection tank and reused in cooling tower/process. | Complied. Process Steam Condensate collected separately and reused in cooling tower. |
| 3.5 | 4511 KLD of industrial effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) shall be sent to separate ETP (UF&RO including primary treatment). After treatment 3928 KLD the treated shall be reused in cooling tower/process and 583 KLD RO reject after confirming the GPCB discharge norms shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea. | Utility effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) treated in separate UF & RO System and the permeate is used in cooling tower. |
| 3.6 | In that 1779 KLD (Process Effluent + Washings) of industrial effluent shall be sent to ETP for primary, secondary and tertiary treatment and Multi Effect Evaporator (MEE) followed by Agitated Thin Film Dryer. After treatment the treated shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea. | Average 1044 KL Process and Washing effluent treated in separate Effluent Treatment Plant having Primary, Secondary and Tertiary treatment & Multi Effect Evaporated (MEE) plant |



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<table>
<tr><td></td><td></td><td>& ATFD. The treated effluent is sent for the disposal in to GIDC sewer line.</td></tr>
<tr><td>3.7</td><td>Total 2362 KLD treated (1779 KLD treated industrial effluent + 583 KLD RO reject after confirming the GPCB standard) shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea for final disposal at NIO designated points.</td><td>Average wastewater discharge for is 1553 KLD.</td></tr>
<tr><td>3.8</td><td>340 KLD of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season it shall be reuse in cooling tower/process.
<table>
<tr><td>PARAMETER</td><td>GPCB NORMS</td></tr>
<tr><td>pH</td><td>6.5 TO 9.0</td></tr>
<tr><td>Total Suspended Sollids</td><td>< 100 mg/L</td></tr>
<tr><td>Fecal Coliform (Most probable number per 100 mililiter, MPN/100ml)</td><td>< 1000 MPN/100 ml</td></tr>
<tr><td>BOD (5 days at 20-degree C)</td><td>< 30 mg/L</td></tr>
</table></td><td>The sewage is treated in STP and used for gardening purpose. IN monsoon the treated sewage is re-used in cooling tower.<br><br>Average 217 KLD sewage is treated<br><br>The STP inlet and outlet quality is tested by NABL accredited laboratory on monthly basis.</td></tr>
<tr><td>3.9</td><td>The quality of treated effluent shall conform to the following standards prior to disposal GIDC Sewer Line - Dahej Vilayat Pipeline/Common Disposal System up to the sea for final disposal at NIO designated point.
<table>
<tr><td>Parameters</td><td>Permissible Limit</td></tr>
<tr><td>pH</td><td>6 to 9</td></tr>
<tr><td>Temperature</td><td>Shall not exceed 5°C above the receiving water temperature.</td></tr>
<tr><td>Total Suspended Solids</td><td>100 mg/Lit</td></tr>
<tr><td>Oil and Grease</td><td>10 mg/l</td></tr>
<tr><td>Phenolic Compounds (s C6H5OH</td><td>5 mg/l</td></tr>
<tr><td>Cynide (as CN)</td><td>0.2 mg/l</td></tr>
</table></td><td>The monthly monitoring of treated effluent by MoEF and NABL approved laboratory confirming the results well within</td></tr>
</table>



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| | | | |
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| | Fluorides | 15 mg/l | the permissible limits.<br><br>The continuous monitoring system for COD, TN, TOC, Ammonical Nitrogen, pH, Flow and TSS before treated effluent disposal to GIDC, Common Network. |
| | Sulphides | 5 mg/l | |
| | Ammonical Nitrogen | 50 mg/l | |
| | Total Kjeldahl Nitrogen (TKN) | 50 mg/l | |
| | Nitrate - Nitrogen | 50 mg/l | |
| | Total Residual Chloride | 1 mg/l | |
| | Arsenic (as As) | 0.2 mg/l | |
| | Trivalent Chromium | 2 mg/l | |
| | Chromium-Hexavalent | 0.1 mg/l | |
| | Copper | 3 mg/l | |
| | Lead (as Pb) | 0.1 mg/l | |
| | Mercury (as Hg) | 0.01 mg/l | |
| | Nickel | 3 mg/l | |
| | Zinc | 15 mg/l | |
| | Cadmium (as Cd) | 0.05 mg/l | |
| | BOD (3 days at 27-degree C) | 100 mg/l | |
| | COD | 250 mg/l | |
| | Selenium [as Se] | 0.05 mg/l | |
| | Vanadium | 0.2 mg/l | |
| | Manganese [as Mn] | 2 mg/l | |
| | Iron | 3 mg/l | |
| | Bio-assay test | 90% Survival of fish after 96 hrs in 100% effluent. | |

| | | | |
|---|---|---|---|
| CONDITION UNDER AIR ACT | | | |
| 4.1 | Condition No. 4.1 (of the CCA Amendment dated 22/02/2018) stands amended and shall be read as under, | | |
| Sr. No. | Name Of Fuel | Total Quantity per day | Average Consumption |
| 1 | Coal | 1668 MT/Day | 879MT/Day |
| 2 | HSD | 216 KL/day | 8 KL/day |
| 3 | Natural Gas [alternate fuel instead of coal] | 45203 Nm3/day | 0 |
| 4 | Furnace Oil (LPD) | 142.5 KL/day | 0 KL/day |
| 5 | LSHS/LDO | 110 KL/day | 21 KL/day |
| | | | |
| 4.2 | Condition No. 4.2 (of the CCA Amendment dated 22/02/2018) stands amended and shall be read as under,<br>The flue gas emission through stack attached to boiler / D.G.Sets / TPP shall conform to the following standard: | | Complied. Flue gas emission monitoring |



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| Sr. No. | Stack Attached To | Stack Height (meter) | APC M | Pollutant | Permissible Limit | carried out on monthly basis by MoEF and NABL approved laboratory and its results/report is submitted to GPCB RO, Bharuch |
|---|---|---|---|---|---|---|
| 3. | Boiler 35 TPH | 94 (Common Stack) | Electrostatic Precipitator + Scrubber | PM<br>SO2<br>NOx<br>Hg | 50 mg/Nm3<br>600 mg/Nm3<br>450 mg/Nm3<br>0.03 mg/Nm3 | |
| 4. | Boiler 35 TPH | | | | | |
| 5. | Boiler 60 TPH | | | | | |
| 6. | DG Set 500 KW | 11 | - | PM<br>SO2<br>NOx | 150 mg/Nm3<br>100 ppm<br>50 ppm | |
| 7. | DG Set 500 KW | 11 | - | | | |
| 8. | DG Set 840 KW | 30 | - | | | |
| 9. | DG Set 840 KW | 30 | - | | | |
| 0. | TCE/PCE Plant Thermic fluid/ Fire Heaters No. 1 | 50 | Efficient Burner | | | |
| 1. | TCE/PCE Plant Thermic fluid/ Fire Heaters No. 2 | 50 | Efficient Burner | | | |
| 2. | HFC 134a Plant Thermic fluid/ Fire Heaters | 50 | Efficient Burner | | | |
| 3. | AHF Plant Heater No. 1 (Thermic | 46 | Efficient Burner | | | |



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| | | fluid/ Fire Heaters) | | | | | |
| | 4. | AHF Plant Drying System No. 1 | 35 | Cyclone Separator /Bag Filter | | | |
| | 5. | AHF Plant Heater No. 2 (Thermic fluid/ Fire Heaters) | 46 | Efficient Burner | | | |
| | 6. | AHF Plant Drying System No. 2 (Thermic fluid/ Fire Heaters) | 35 | Cyclone Separator /Bag Filter | | | |
| | 7. | Difluoro methane (HFC 32) Plant Hot Oil Furnace (Thermic fluid/ Fire Heaters) | 55 | Efficient Burner | | | |
| | 8. | Boiler 30 TPH | 63 | - | | | |
| | 9. | Boiler 30 TPH | 63 | - | | | |
| | 0. | DG Set 4200 kVA | 30 | - | | | |
| | 1. | DG Set 4200 kVA | 30 | - | | | |
| | 2. | DG Set 4200 kVA | 30 | - | | | |
| | 3. | Boiler 17 TPH | 53 | - | | | |



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| 4. | Dust Collectors | 11 | Bag Filter | Particulate Matter | 150 mg/Nm3 | |
| 5. | Boiler 175 TPH | 110 | Electrostatic Precipitator + Auto Lime Dosing System | PM<br>SO2<br>NOx<br>Hg | 30 mg/Nm3<br>100 mg/Nm3<br>100 mg/Nm3<br>0.03 mg/Nm3 | |
| 6. | Thermal Oxidizer-1 | 40 | Quencher + Water Absorber + Alkali Scrubber | PM<br>HCl<br>SO2<br>CO<br><br>Total Organic Carbon<br><br>Total dioxins and durans<br><br>Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V+Cd+Th+Hg and their compounds | 50 mg/Nm3<br>50 mg/Nm3<br>200 mg/Nm3<br>100 mg/Nm3<br><br>20 mg/Nm3<br><br><br>0.1 TEQ/Nm3<br><br><br>1.5 mg/Nm3 | |



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<table>
<tr><td>4.3</td><td colspan="5">Condition No. 3 (of the CCA Amendment dated 17/05/2018) stands amended and shall be read as under,<br>The process gas emission through various stack / vent of reactors, process vessels shall confirm to the following standards</td><td>Process gas emission monitoring carried out on monthly basis by MoEF and NABL approved laboratory and its results/report is submitted to GPCB RO, Bharuch are well within permissible limits.</td></tr>
<tr><td></td><td>Stack</td><td>Stack Attach To</td><td>Air Pollution Control System</td><td>Stack height in Meter</td><td>AIR EMISSION</td><td></td></tr>
<tr><td colspan="5"></td><td>POLLUTANT</td><td>CONCENTRATION</td></tr>
<tr><td colspan="6">Existing Process Stack</td><td></td></tr>
<tr><td colspan="6">HF Plant Stack</td><td></td></tr>
<tr><td></td><td>1</td><td>HF Plant Central Absorption System</td><td>Continuous water Circulation</td><td>30</td><td>HF</td><td>6mg/NM3</td></tr>
<tr><td colspan="6">TCE/PCE Plant Stack</td><td></td></tr>
<tr><td></td><td>2</td><td>TCE/PCE Plant (Central Absorption System)</td><td>Continuous Alkali Circulation</td><td>20</td><td>Cl2</td><td>9mg/NM3</td></tr>
<tr><td></td><td>3</td><td>TCE/PCE Plant (Central Absorption System)</td><td>Continuous Water Circulation</td><td>30</td><td>HCl</td><td>20mg/NM3</td></tr>
<tr><td colspan="6">HFC Plant Stack</td><td></td></tr>
</table>



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| 4 | R134a Plant (Central Absorption System) | Continuous Water Circulation | 30 | HCl | 20mg/NM3 | |
| | | | | HF | 6mg/NM3 | |
| Flourospeciality Plant Stacks | | | | | | |
| 5 | Reactor / Vessel (10 Nos.) Central Absorption System | Continuous Water Circulation | 30 | HF | 6mg/NM3 | |
| | | | | HCl | 20mg/NM3 | |
| 6 | Reactor / Vessel (10 Nos.) Central Absorption System | Continuous Water Circulation | 30 | HCl | 20mg/NM3 | |
| 7 | Reactor / Vessel (04 Nos.) Central Absorption System | Continuous Alkali Circulation | 20 | Cl2 | 9mg/NM3 | |
| 8 | Reactor / Vessel (02 Nos.) Central Absorption System | Continuous Alkali Circulation | 20 | Br2 | 2mg/NM3 | |
| 9 | Trifluoro Acetic Acid | Continuous Water + Alkali | 30 | HF | 6 mg/NM3 | |
| | Central Absorption | | | HCl | 20 mg/NM3 | |



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| | | | Circulation | | | |
| 10 | Ethyldifluoroacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 11 | Ethyltrifluroacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| 12 | Ethyltrifluoroacetoacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 13 | Pentafluorobenzoic Acid Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 14 | Pyrazole Acid Central Absorption System | Continuous Water + | 30 | HCl | 20 mg/NM3 |



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| | | | Alkali Circulation | | | |
| 15 | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| 16 | Tetrafluoropropene – 1234yf Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |
| 17 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 18 | Hexafluoropropylene Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 19 | Difluoromethanesulphonlychloride | Continuous | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |



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| | | Central Absorption System** | Water + Alkali Circulation | | | | |
| | 20 | Trifluoromethylbenzamide Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 | |
| | | | | | Cl2 | 9 mg/NM3 | |
| | 21 | Bromopentafluorobenzene Central Absorption System | Continuous Water + Alkali Circulation | . | Br2 | 2 mg/NM3 | |
| | 22 | 5-Bromo-2-2-difluoro-1-3-benzodioxide Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 | |
| | | | | | Br2 | 2 mg/NM3 | |
| | | | | | HF | 6 mg/NM3 | |
| | 23 | Difluorobenzodioxole methyl ester Central Absorption System** | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 | |
| | | | | | Br2 | 2 mg/NM3 | |



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| | 24 | Methyl-2-Fluoroacrylate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | 25 | CMS plant (Methylene dichloride, Chloroform, Carbon tetrachloride) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | | Cl2 | 9 mg/NM3 |
| | 26 | Chlorotrifluoroethane (HCFC 133a) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | | HF | 6 mg/NM3 |
| | 27 | Pentafluoroethane (HFC 125) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | | HF | 6 mg/NM3 |
| | 28 | Difluoromethane (HFC – 32) Central Absorption System | Continuous Water + Alkali Circ | 30 | HCl | 20 mg/NM3 |
| | | | | | HF | 6 mg/NM3 |



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| | | ulation | | | |
| 29 | HCl Storage Tank Farm | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 30 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 31 | Flare Stack attached to Topramezone Plant | N.A. | 30 | - | - |
| 32 | Chlorodifluoromethane (R22) plant Central Absorption System | Continuous Water Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCL | 20 mg/NM3 |
| 33 | Calcium Chloride Plant Scrubber | Continuous Water + Sodium Carbonate Solutions | 30 | CO2 | - |
| 34 | Methyl Hydroxy Pyrazole | Continuous Wate | 30 | HCL | 20 mg/NM3 |



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| | | | r Circulation | | | |
| | 35 | TCE/PCE Acid tank farm area scrubber vent | Continuous Water Circulation | 11.7 | HCL | 20 mg/NM3 |
| | 36 | HFC134a Acid tank farm area scrubber vent | Continuous Water Circulation | 11.4 | HCL | 20 mg/NM3 |
| | 37 | DHF Scrubber | Continuous Water Circulation | 10 | HF | 6 mg/NM3 |

**4.4** The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

| Sr. No. | Parameters | Permissible Limit (microgram /M3) | |
|---|---|---|---|
| | | Annual | 24 Hours Average |
| 1. | Particulate Matter (PM10) | 60 | 100 |
| 2. | Particulate Matter (PM2.5) | 40 | 60 |
| 3. | Oxides of Sulphur (SOx) | 50 | 80 |
| 4. | Oxides of Nitrogen (NOx) | 40 | 80 |

• Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
• 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

**4.5** Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition as above.



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<table>
<tr><td>5</td><td>CONDITIONS UNDER HAZARDOUS & OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016</td><td></td></tr>
<tr><td>5.1</td><td>Unit shall comply with provisions of Hazardous & Other Wastes (Management & Transboundary Movement) Rules-2016.</td><td></td></tr>
<tr><td>5.2</td><td>The condition No. 5 under authorization for Hazardous & other wastes of the CCA order No: AWH-104607, issued vide letter no. GPCB/ BRCH-B/ CCA-38(13)/ ID-15121/525661, dated 25/10/2019 is amended and shall now be read as under.
<table>
<tr><th rowspan="2">Sr. No.</th><th rowspan="2">Name of Haz. Waste</th><th rowspan="2">Category Number</th><th colspan="2">Facility</th></tr>
<tr><th>Total Hazardous Waste Quantity, MT/Yr</th><th>Mode of disposal</th></tr>
<tr><td>1</td><td>Chemical sludge from wastewater treatment</td><td>35.3</td><td>3265</td><td>Collection, Storage, Transportation and Disposal at approved TSDF or co-processing.</td></tr>
<tr><td>2</td><td>Spent Oil</td><td>5.1</td><td>600</td><td>Collection, storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners</td></tr>
<tr><td>3</td><td>Discarded containers / barrels / liners used for hazardous wastes/chemicals</td><td>33.1</td><td>5,428</td><td>Collection, storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners</td></tr>
<tr><td>4</td><td>Spent Catalyst</td><td>36.2</td><td>2,763</td><td>Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing.</td></tr>
<tr><td>5</td><td>Spent Carbon</td><td>36.2</td><td>468</td><td>Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing.</td></tr>
<tr><td>6</td><td>Off- Specification Product</td><td>36.1</td><td>600</td><td>Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-</td></tr>
</table>
</td><td>The hazardous waste generation quantity is well within allowable limit.<br><br>We are having valid membership certificate with TSDF and CHWIF.<br><br>We have MoU with actual/end users for using hazardous waste as raw material.<br><br>We have agreements with pre-processors and co-processors for using hazardous wastes as an AFR.</td></tr>
</table>



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| | | | | processing or pre-processing. |
| 7 | Process Residue & Waste | 36.1 | 15,125 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. |
| 8 | Spent Organic Solvent | 20.2 | 47586 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission & valid CCA after making MOU. |
| 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | 18,553 | |
| 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | 37,869 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. |
| 11 | CuCl Cake | 8.2 | 52 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. |
| 12 | Ammonium Salt | A-10 | 1,717 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 13 | Potassium Salt | B-36 | 445 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & |



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| | | | | valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| 14 | Sodium Salt | B-36 | 4402 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| 15 | Zinc Compound | 6.1 | 44 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| 16 | Hydrofluorosilicic acid (15-40%) | Sch II - Class C - C2 | 4000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | |
| 17 | Sulphuric acid (70-95%) | B-15 | 90382 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | |
| 18 | Hydrochloric Acid (10 - 33%) | B-15 | 4,11,553 | Collection, Storage, Transportation and | |



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| | | | | Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 19 | Sodium Hypochlorite | B-7 | 13875 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | 2,593 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 21 | Calcium Fluoride | B-10 | 5,844 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 22 | Calcium Chloride | B-10 | 165 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 23 | Sodium methoxide Solution | C7 | 120 | Collection, Storage, Transportation and |



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| | | | | Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing | |
| 24 | Phosphorus trichloride | B-35 | 934 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| 25 | Gypsum (CaSO4) | 38.1 | 1,62,400 | Collection, Storage, Transportation and Disposal by sending to Cement industries or Actual Users having rule-9 permission & valid CCA after making MOU or co-processing or pre-processing facility | |
| 26 | Aluminum trifluoride | 36.1 | 1,000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | 1,500 | Collection, Storage, Transportation and Disposal by sending | |



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| | | | | to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU | |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | 2,802 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| 29 | Fluoroform (R23) | 28.1 | 240 | Collection, Storage, In-house treatment through Thermal Oxidizer/ Transportation and Disposal at approved CHWIF. | |
| 30 | Inorganic Sludge Generation from Calcium Chloride Plant | 35.3 | 234 | Collection, Storage, Transportation and Disposal at approved TSDF | |
| 31 | Caustic lye | Sch II - Class C - C2 | 36 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user | |
| 32 | Ash from thermal oxidizer and flue gas cleaning residue | 37.2 | 40 | Collection, Storage, Transportation and Disposal by approved TSDF or co-processing or pre-processing | |
| 33 | Exhaust air or gas cleaning residue (mixed/lean acid generated from scrubber of thermal oxidizer) | 35.1 | 1908 | Collection, Storage, Transportation and Disposal by approved CHWIF or co-processing or pre-processing | |
| 34 | Insulation waste | _ | 300 | Collection, Storage, Transportation and | |



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| | <table><tr><td></td><td></td><td></td><td></td><td>Disposal by approved TSDF</td></tr></table><br>Unit shall ensure transportation of hazardous wastes through GPS mounted authorized vehicles with recording facility and online manifest system of the Board. | |
| 6 | All other conditions of the CCA order No: AWH-119079, issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ ID-24521/678954, dated 26/07/2022 shall remain same. | Complied. |

| **CCA Letter No. GPCB/BRCH-B/CCA-38 (21)/ID-24521/738542 Dated 06/04/2023** | | |
|---|---|---|
| Sr. No. | Conditions<br>This has reference to the CCA Amendment issued vide letter no. GPCB/BRCH-B/CCA-38(19)/ID-24521/678954 dated 26/07/2022 under the provision of the various Environmental Act/Rules, | Compliance Status |
| 2. | Specific Condition | |
| a) | Unit shall mentioned ZLD for wastewater generated from proposed CPP of capacity 20.1MW | Noted and Complied. |
| b) | Unit shall comply MoEF & CC's Notification dated 28/06/2018 and its subsequent amendment for thermal power plant. | Noted and Complied. |
| c) | Unit shall not carry out any construction activities and production which attracts provisions of Environment Clearance without obtaining EC from competent authority under EIA notification dated 14/09/2006 and amended thereafter | Noted and Complied. |
| d) | Unit shall comply with all the conditions stipulated by SEIAA / MoEF in the order of Environment Clearance issued vide letter no. SEIAA/GUJ/EC/5(f)/1538/2020 dated_15/12/2020. | Complied. Last Half yearly EC compliance report is submitted to MoEF on 31-May-24 and the same is available on website. |
| e) | Unit shall sell out their hazardous waste to authorized end users who is having authorization with valid CCA and rule 9 permission to receive this waste. Unit shall make MoU with such authorized end users and submit MoU. | Complied. We are selling hazardous waste to authorized actual user or end users only. All the authorized actual/end |



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| | | users have applied/obtained permissions from concerned authorities under Rule 9 of the Hazardous and Other Waste Management and Transboundary Movement) Rules 2016. |
| f) | All the efforts shall be made to send hazardous waste to cement industry for Co-processing first & there after it shall be disposed through other option. | We have agreements with various cement industries (Ambuja cement, J K Lakshmi cement, Shree Cement, Ultratech Cement) for hazardous waste usage as AFR. |
| g) | Unit shall follow spent solvent management guideline framed by board and shall make MoU with outside distillation units, if any. Also submit the prescribed forms as per guideline. | Complied. We have MoUs with actual end users for spent solvent recycling/re-processing. |
| h) | Unit shall strictly follow the Solid Fuel guideline framed by Board and shall install APCM as per guideline. | We have installed lime dosing system as APCM in our solid fuel boilers. |
| i) | Unit shall follow coal handling guideline framed by Board and provide close ash handling facility. | 1) Coal is covered with tarpaulin during transportation. |



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| | | 2) Coal loading and unloading activity is being done in closed shed.<br>3) Handling and transportation of coal is through covered coal conveyers<br>4) Dust collectors are installed to abate the nuisance of dust.<br>5) Installation of two Silo for fly ash storage |
| k) | Unit shall strictly follow the Fly Ash Notification for disposal of generated ash. | 100% Fly ash is sent to brick manufacturers/ cement industry/in construction work. |
| l) | Unit shall install online Continuous Emission Monitoring Systems (CEMS) and link it with the server of GPCB for real time data transfer for boiler more than 8 TPH capacity or equivalent capacity of TFH. | Continuous Emission Monitoring System for effluent discharge and stacks emissions are installed in unit. An arrangement is also available for reflecting the online monitoring results on the company's server, which can be |



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| | | accessed by the GPCB on real time basis. |
| 3 | CONDITION UNDER WATER ACT: - | |
| 3.1 | The quantity of total water consumption shall not exceed 20984 KL/day as per below break up as mentioned in form D submitted for consent application under the water act-1974<br>(a) Domestic: 429 KL/Day<br>(b) Industrial: 20340 KL/Day<br>Total 20984 Kl/day | Average water consumption is 9292 KLD. |
| 3.2 | The Quantity of total water generation shall not exceed 10654 KL/day as per below break up as mentioned in form D submitted for consent application under the water act-1974<br>(a) Domestic: 340 KL/Day<br>(b) Industrial: 10314KL/Day<br>Total: 10654KL/day | Average wastewater generation from domestic and industrial is 217 KLD & 3204 KLD resp. |
| 3.3 | The quantity of the industrial effluent from the manufacturing process and other ancillary Industrial operations shall not exceed 10314 KL/Day, and the quantity of domestic wastewater (sewage) shall not exceed 340 KL/Day. | Average wastewater generation from domestic and industrial is 217 KLD & 3204 KLD resp. |
| 3.4 | 4024 KLD of process steam condensate collected in separate collection tank and reused in cooling tower/process. | Complied. Process Steam Condensate collected separately and reused in cooling tower. |
| 3.5 | 4511 KLD of industrial effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) shall be sent to separate ETP (UF&RO including primary treatment). After treatment 3928 KLD the treated shall be reused in cooling tower/process and 583 KLD RO reject after confirming the GPCB discharge norms shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea. | Utility effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) treated in separate UF & RO System and the permeate is |



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<table>
<tr><td></td><td></td><td>used in cooling tower.</td></tr>
<tr><td>3.6</td><td>In that 1779 KLD (Process Effluent + Washings) of industrial effluent shall be sent to ETP for primary, secondary and tertiary treatment and Multi Effect Evaporator (MEE) followed by Agitated Thin Film Dryer. After treatment the treated shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea.</td><td>Average 1044 KL Process and Washing effluent treated in separate Effluent Treatment Plant having Primary, Secondary and Tertiary treatment & Multi Effect Evaporated (MEE) plant & ATFD. The treated effluent is sent for the disposal in to GIDC sewer line.</td></tr>
<tr><td>3.7</td><td>Total 2362 KLD treated (1779 KLD treated industrial effluent + 583 KLD RO reject after confirming the GPCB standard) shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea for final disposal at NIO designated points.</td><td>Average wastewater discharge for is 1553 KLD.</td></tr>
<tr><td>3.8</td><td>340 KLD of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season it shall be reuse in cooling tower/process.
<table>
<tr><td>PARAMETER</td><td>GPCB NORMS</td></tr>
<tr><td>pH</td><td>6.5 TO 9.0</td></tr>
<tr><td>Total Suspended Sollids</td><td>< 100 mg/L</td></tr>
<tr><td>Fecal Coliform (Most probable number per 100 mililiter, MPN/100ml)</td><td>< 1000 MPN/100 ml</td></tr>
<tr><td>BOD (5 days at 20-degree C)</td><td>< 30 mg/L</td></tr>
</table></td><td>The sewage is treated in STP and used for gardening purpose. IN monsoon the treated sewage is re-used in cooling tower.<br><br>Average 217 KLD sewage is treated</td></tr>
</table>



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| | | The STP inlet and outlet quality is tested by NABL accredited laboratory on monthly basis. The monthly monitoring of treated effluent by MoEF and NABL approved laboratory confirming the results well within the permissible limits.<br><br>The continuous monitoring system for COD, TN, TOC, Ammonical Nitrogen, pH, Flow and TSS before treated effluent disposal to GIDC, Common Network. |
| 3.9 | The quality of treated effluent shall conform to the following standards prior to disposal GIDC Sewer Line - Dahej Vilayat Pipeline/Common Disposal System up to the sea for final disposal at NIO designated point. | |

| Parameters | Permissible Limit |
|---|---|
| pH | 6 to 9 |
| Temperature | Shall not exceed 5°C above the receiving water temperature. |
| Total Suspended Solids | 100 mg/Lit |
| Oil and Grease | 10 mg/l |
| Phenolic Compounds (s C6H5OH | 5 mg/l |
| Cynide (as CN) | 0.2 mg/l |
| Fluorides | 15 mg/l |
| Sulphides | 5 mg/l |
| Ammonical Nitrogen | 50 mg/l |
| Total Kjeldahl Nitrogen (TKN) | 50 mg/l |
| Nitrate - Nitrogen | 50 mg/l |
| Total Residual Chloride | 1 mg/l |
| Arsenic (as As) | 0.2 mg/l |
| Trivalent Chromium | 2 mg/l |
| Chromium-Hexavalent | 0.1 mg/l |
| Copper | 3 mg/l |
| Lead (as Pb) | 0.1 mg/l |
| Mercury (as Hg) | 0.01 mg/l |
| Nickel | 3 mg/l |
| Zinc | 15 mg/l |
| Cadmium (as Cd) | 0.05 mg/l |
| BOD (3 days at 27-degree C) | 100 mg/l |
| COD | 250 mg/l |
| Selenium [as Se] | 0.05 mg/l |
| Vanadium | 0.2 mg/l |
| Manganese [as Mn] | 2 mg/l |
| Iron | 3 mg/l |
| Bio-assay test | 90% Survival of fish after 96 hrs in 100% effluent. |

| | | |
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| CONDITION UNDER AIR ACT | | |
| 4.1 | Condition No. 4.1 (of the CCA Amendment dated 22/02/2018) stands amended and shall be read as under, | |



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| Sr. No. | Name Of Fuel | Total Quantity per day | Average Consumption |
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| 1 | Coal | 1668 MT/Day | 879MT/Day |
| 2 | HSD | 216 KL/day | 8 KL/day |
| 3 | Natural Gas [alternate fuel instead of coal] | 45203 Nm3/day | 0 |
| 4 | Furnace Oil (LPD) | 142.5 KL/day | 0 KL/day |
| 5 | LSHS/LDO | 110 KL/day | 21 KL/day |

**4.2** Condition No. 4.2 (of the CCA Amendment dated 22/02/2018) stands amended and shall be read as under,

The flue gas emission through stack attached to boiler / D.G.Sets / TPP shall conform to the following standard:

| Sr. No. | Stack Attached To | Stack Height (meter) | APCM | Pollutant | Permissible Limit |
|---|---|---|---|---|---|
| 3. | Boiler 35 TPH | 94 (Common Stack) | Electrostatic Precipitator + Scrubber | PM<br>SO2<br>NOx<br>Hg | 50 mg/Nm3<br>600 mg/Nm3<br>450 mg/Nm3<br>0.03 mg/Nm |
| 4. | Boiler 35 TPH | | | | |
| 5. | Boiler 60 TPH | | | | |
| 6. | DG Set 500 KW | 11 | - | PM<br>SO2<br>NOx | 150 mg/Nm3<br>100 ppm<br>50 ppm |
| 7. | DG Set 500 KW | 11 | - | | |
| 8. | DG Set 840 KW | 30 | - | | |
| 9. | DG Set 840 KW | 30 | - | | |
| 0. | TCE/PCE Plant Thermic fluid/ Fire Heaters No. 1 | 50 | Efficient Burner | | |
| 1. | TCE/PCE Plant Thermic fluid/ Fire Heaters No. 2 | 50 | Efficient Burner | | |
| 2. | HFC 134a Plant Thermic fluid/ Fire Heaters | 50 | Efficient Burner | | |

Complied. Flue gas emission monitoring carried out on monthly basis by MoEF and NABL approved laboratory and its results/report is submitted to GPCB RO, Bharuch



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| 3. | AHF Plant Heater No. 1 (Thermic fluid/ Fire Heaters) | 46 | Efficient Burner | | | |
| 4. | AHF Plant Drying System No. 1 | 35 | Cyclone Separator /Bag Filter | | | |
| 5. | AHF Plant Heater No. 2 (Thermic fluid/ Fire Heaters) | 46 | Efficient Burner | | | |
| 6. | AHF Plant Drying System No. 2 (Thermic fluid/ Fire Heaters) | 35 | Cyclone Separator /Bag Filter | | | |
| 7. | Difluoromethane (HFC 32) Plant Hot Oil Furnace (Thermic fluid/ Fire Heaters) | 55 | Efficient Burner | | | |
| 8. | Boiler 30 TPH | 63 | - | | | |
| 9. | Boiler 30 TPH | 63 | - | | | |
| 0. | DG Set 4200 kVA | 30 | - | | | |
| 1. | DG Set 4200 kVA | 30 | - | | | |
| 2. | DG Set 4200 kVA | 30 | - | | | |
| 3. | Boiler 17 TPH | 53 | - | | | |
| 4. | Dust Collectors | 11 | Bag Filter | Particulate Matter | 150 mg/Nm3 | |
| 5. | Boiler 175 TPH | 110 | Electrostatic Precipitator + Auto Lime Dosing System | PM<br>SO2<br>NOx<br>Hg | 30 mg/Nm3<br>100 mg/Nm3<br>100 mg/Nm3<br>0.03 mg/Nm3 | |
| 6. | Thermal Oxidizer-1 | 40 | Quencher + Water Absorber + Alkali Scrubber | PM<br>HCl<br>SO2<br>CO<br><br>Total Organic Carbon<br><br>Total dioxins | 50 mg/Nm3<br>50 mg/Nm3<br>200 mg/Nm3<br>100 mg/Nm3<br><br>20 mg/Nm3<br><br>0.1 TEQ/Nm3 | |



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| | | | | | and durans<br><br>Sb+As+ Pb+Cr+ Co+Cu+ Mn+Ni+ V+Cd+T h+Hg and their compou nds | 1.5 mg/Nm3 | |

| | | | | | | | |
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| 4.3 | Condition No. 3 (of the CCA Amendment dated 17/05/2018) stands amended and shall be read as under,<br>The process gas emission through various stack / vent of reactors, process vessels shall confirm to the following standards | | | | | Process gas emission monitoring carried out on monthly basis by MoEF and NABL approved laboratory and its results/report is submitted to GPCB RO, Bharuch are well within permissible limits. | |
| | S t a c k | Stack Attach To | Air Pollut ion Contr ol Syste m | Stack height in Meter | AIR EMISSION | | |
| | | | | | POLLUTANT | CONCEN TRATION | |
| | Existing Process Stack | | | | | | |
| | HF Plant Stack | | | | | | |
| | 1 | HF Plant Central Absorption System | Conti nuous water Circul ation | 30 | HF | 6mg/NM3 | |
| | TCE/PCE Plant Stack | | | | | | |
| | 2 | TCE/PCE Plant (Central Absorption System) | Conti nuous Alkali Circul ation | 20 | Cl2 | 9mg/NM3 | |



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| 3 | TCE/PCE Plant (Central Absorption System) | Continuous Water Circulation | 30 | HCl | 20mg/NM3 |
| HFC Plant Stack | | | | | |
| 4 | R134a Plant (Central Absorption System) | Continuous Water Circulation | 30 | HCl | 20mg/NM3 |
| | | | | HF | 6mg/NM3 |
| Flourospeciality Plant Stacks | | | | | |
| 5 | Reactor / Vessel (10 Nos.) Central Absorption System | Continuous Water Circulation | 30 | HF | 6mg/NM3 |
| | | | | HCl | 20mg/NM3 |
| 6 | Reactor / Vessel (10 Nos.) Central Absorption System | Continuous Water Circulation | 30 | HCl | 20mg/NM3 |
| 7 | Reactor / Vessel (04 Nos.) Central Absorption System | Continuous Alkali Circulation | 20 | Cl2 | 9mg/NM3 |
| 8 | Reactor / Vessel (02 Nos.) Central Absorption System | Continuous Alkali Circulation | 20 | Br2 | 2mg/NM3 |
| 9 | Trifluoro Acetic Acid | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | Central Absorption | | | HCl | 20 mg/NM3 |
| 10 | Ethyldifluoroacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | HCl | 20 mg/NM3 |



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| | 11 | Ethyltrifluroacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | 12 | Ethyltrifluoroacetoacetate Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | 13 | Pentafluorobenzoic Acid Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | | Cl2 | 9 mg/NM3 |
| | 14 | Pyrazole Acid Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | 15 | 2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | | Br2 | 2 mg/NM3 |
| | 16 | Tetrafluoropropene – 1234yf Central Absorption System | Continuous Water + Alkali Circulation | 30 | HF | 6 mg/NM3 |
| | | | | | HCl | 20 mg/NM3 |
| | 17 | 1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System | Continuous Water + Alkali | 30 | HCl | 20 mg/NM3 |



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| | | Circulation | | | |
| 18 | Hexafluoropropylene Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 19 | Difluoromethanesulphonlychloride Central Absorption System** | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 20 | Trifluoromethylbenzamide Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 21 | Bromopentafluoro benzene Central Absorption System | Continuous Water + Alkali Circulation | . | Br2 | 2 mg/NM3 |
| 22 | 5-Bromo-2-2-difluoro-1-3-benzodioxide Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 23 | Difluorobenzodioxole methyl ester Central Absorption System** | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Br2 | 2 mg/NM3 |
| 24 | Methyl-2-Fluoroacrylate | Continuous Water | 30 | HF | 6 mg/NM3 |



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| | | | | | |
|---|---|---|---|---|---|
| | Central Absorption System | + Alkali Circulation | | | |
| 25 | CMS plant (Methylene dichloride, Chloroform, Carbon tetrachloride) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | Cl2 | 9 mg/NM3 |
| 26 | Chlorotrifluoroethane (HCFC 133a) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 27 | Pentafluoroethane (HFC 125) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 28 | Difluoromethane (HFC – 32) Central Absorption System | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| | | | | HF | 6 mg/NM3 |
| 29 | HCl Storage Tank Farm | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |
| 30 | [3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl] (5-hydroxy-1-methylpyrazol-4-yl) methanone (Topramezone) | Continuous Water + Alkali Circulation | 30 | HCl | 20 mg/NM3 |



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| | | | | | | |
|---|---|---|---|---|---|---|
| | | Central Absorption System | | | | |
| | 31 | Flare Stack attached to Topramezone Plant | N.A. | 30 | - | - |
| | 32 | Chlorodifluoromethane (R22) plant Central Absorption System | Continuous Water Circulation | 30 | HF | 6 mg/NM3 |
| | | | | | HCL | 20 mg/NM3 |
| | 33 | Calcium Chloride Plant Scrubber | Continuous Water + Sodium Carbonate Solutions | 30 | CO2 | - |
| | 34 | Methyl Hydroxy Pyrazole | Continuous Water Circulation | 30 | HCL | 20 mg/NM3 |
| | 35 | TCE/PCE Acid tank farm area scrubber vent | Continuous Water Circulation | 11.7 | HCL | 20 mg/NM3 |
| | 36 | HFC134a Acid tank farm area scrubber vent | Continuous Water Circulation | 11.4 | HCL | 20 mg/NM3 |
| | 37 | DHF Scrubber | Continuous Water Circulation | 10 | HF | 6 mg/NM3 |

4.4 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder.

| Sr. No. | Parameters | Permissible Limit (microgram /M3) | |
|---|---|---|---|
| | | Annual | 24 Hours Average |



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| | | | | |
|---|---|---|---|---|
| | 1. | Particulate Matter (PM10) | 60 | 100 |
| | 2. | Particulate Matter (PM2.5) | 40 | 60 |
| | 3. | Oxides of Sulphur (SOx) | 50 | 80 |
| | 4. | Oxides of Nitrogen (NOx) | 40 | 80 |

• Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
• 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

| | | |
|---|---|---|
| 4.5 | Unit shall operate industrial plant / air pollution control equipment very efficiently and continuously so that the gaseous emission always conforms to the standards specified in condition as above. | |
| 5 | CONDITIONS UNDER HAZARDOUS & OTHER WASTES (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016 | |
| 5.1 | Unit shall comply with provisions of Hazardous & Other Wastes (Management & Transboundary Movement) Rules-2016. | |
| 5.2 | The condition No. 5 under authorization for Hazardous & other wastes of the CCA order No: AWH-104607, issued vide letter no. GPCB/ BRCH-B/ CCA-38(13)/ ID-15121/525661, dated 25/10/2019 is amended and shall now be read as under. | The hazardous waste generation quantity is well within allowable limit.<br><br>We are having valid membership certificate with TSDF and CHWIF.<br><br>We have MoU with actual/end users for using hazardous waste as raw material.<br><br>We have agreements with pre- |

| Sr. No. | Name of Haz. Waste | Category Number | Facility | |
|---|---|---|---|---|
| | | | Total Hazardous Waste Quantity, MT/Yr | Mode of disposal |
| 1 | Chemical sludge from wastewater treatment | 35.3 | 3265 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. |
| 2 | Spent Oil | 5.1 | 600 | Collection, storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners |
| 3 | Discarded containers / barrels / liners used for hazardous wastes/chemicals | 33.1 | 5,428 | Collection, storage, Reuse, Transportation and Disposal by sending to authorized recyclers/refiners |



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| | | | | | | |
|---|---|---|---|---|---|---|
| | 4 | Spent Catalyst | 36.2 | 2,763 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | processors and co-processors for using hazardous wastes as an AFR. |
| | 5 | Spent Carbon | 36.2 | 468 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | |
| | 6 | Off- Specification Product | 36.1 | 600 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | |
| | 7 | Process Residue & Waste | 36.1 | 15,125 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | |
| | 8 | Spent Organic Solvent | 20.2 | 47586 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing or sent to authorized actual end-user having rule-9 permission & valid CCA after making MOU. | |
| | 9 | Spent Solvent (Mix of Trichloroethylene & Perchloroethylene) | 20.2 | 18,553 | | |
| | 10 | Chemical sludge from waste water treatment (MEE / ATFD Salt) | 35.3 | 37,869 | Collection, Storage, Transportation and Disposal at approved TSDF or co-processing. | |
| | 11 | CuCl Cake | 8.2 | 52 | Collection, Storage, Transportation and Disposal at approved TSDF/CHWIF or co-processing or pre-processing. | |
| | 12 | Ammonium Salt | A-10 | 1,717 | Collection, Storage, Transportation and Disposal by sending to authorized Actual | |



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| | | | | |
|---|---|---|---|---|
| | | | | users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 13 | Potassium Salt | B-36 | 445 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 14 | Sodium Salt | B-36 | 4402 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 15 | Zinc Compound | 6.1 | 44 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 16 | Hydrofluorosilicic acid (15-40%) | Sch II - Class C - C2 | 4000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 17 | Sulphuric acid (70-95%) | B-15 | 90382 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having |



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| | | | | |
|---|---|---|---|---|
| | | | | rule-9 permission & valid CCA after making MOU |
| 18 | Hydrochloric Acid (10 - 33%) | B-15 | 4,11,553 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 19 | Sodium Hypochlorite | B-7 | 13875 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 20 | Hydrogen / Sodium bromide Solution (10-50%) | B-10 | 2,593 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 21 | Calcium Fluoride | B-10 | 5,844 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 22 | Calcium Chloride | B-10 | 165 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 23 | Sodium methoxide Solution | C7 | 120 | Collection, Storage, Transportation and Disposal by sending to |



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| | | | | |
|---|---|---|---|---|
| | | | | authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF/CHWIF or co-processing or pre-processing |
| 24 | Phosphorus trichloride | B-35 | 934 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 25 | Gypsum (CaSO4) | 38.1 | 1,62,400 | Collection, Storage, Transportation and Disposal by sending to Cement industries or Actual Users having rule-9 permission & valid CCA after making MOU or co-processing or pre-processing facility |
| 26 | Aluminum trifluoride | 36.1 | 1,000 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing |
| 27 | Liquor Ammonia Solution (10-25%) | A10 | 1,500 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user having rule-9 permission & valid CCA after making MOU |
| 28 | Spent Solvent Mix of Ethane + nButane + Iso butene (R600a) + Propane (R290) | 20.2 | 2,802 | Collection, Storage, Transportation and Disposal by sending to authorized Actual |



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| | | | | | |
|---|---|---|---|---|---|
| | | | | users/end-user having rule-9 permission & valid CCA after making MOU or Disposal at approved TSDF or co-processing or pre-processing | |
| | 29 | Fluoroform (R23) | 28.1 | 240 | Collection, Storage, In-house treatment through Thermal Oxidizer/ Transportation and Disposal at approved CHWIF. | |
| | 30 | Inorganic Sludge Generation from Calcium Chloride Plant | 35.3 | 234 | Collection, Storage, Transportation and Disposal at approved TSDF | |
| | 31 | Caustic lye | Sch II - Class C - C2 | 36 | Collection, Storage, Transportation and Disposal by sending to authorized Actual users/end-user | |
| | 32 | Ash from thermal oxidizer and flue gas cleaning residue | 37.2 | 40 | Collection, Storage, Transportation and Disposal by approved TSDF or co-processing or pre-processing | |
| | 33 | Exhaust air or gas cleaning residue (mixed/lean acid generated from scrubber of thermal oxidizer) | 35.1 | 1908 | Collection, Storage, Transportation and Disposal by approved CHWIF or co-processing or pre-processing | |
| | 34 | Insulation waste | _ | 300 | Collection, Storage, Transportation and Disposal by approved TSDF | |
| | Unit shall ensure transportation of hazardous wastes through GPS mounted authorized vehicles with recording facility and online manifest system of the Board. | | | | | |
| 6 | All other conditions of the CCA order No: AWH-119079, issued vide letter no. GPCB/ BRCH-B/ CCA-38(19)/ ID-24521/678954, dated 26/07/2022 shall remain same. | | | | | Complied. |



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# ANNEXURE – 34

## DECLARATION

It is declared that all the information submitted in & with respect to this format is as per the data given by the client industry and collected during environment audit survey by the audit team.

| Name & Signature of the recognized person of the industry / organization institute with stamp | | Name & Signature of all the member of the audit team | |
|---|---|---|---|
| Mr. Harendra Singh Dagur<br>EVP – Site Head | | Dr Savan Tank<br>Co-coordinator | |
| Mr. Kalpesh Jethva<br>VP - Manufacturing | | Dr. Parwathi Pillai<br>Chemical Engineer | |
| Mr. Praveen Mishra<br>AVP – Environment Head | | Mr. Brinda Govani<br>Environmental Engineer | |
| Mr. Mayurkumar Jadav<br>Manager - Environment | | Mr. Apeksha Brahmbhatt<br>Microbiologist | |

**Date: 25.06.2024** **Place: Swarrnim Institute of Technology, Ahmedabad**



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To, **Gpcb Id**: 10653

**Industry Name**: Chhatral Enviroment Management System Pvt Ltd

**Plot No.**: Plot No. 2/3, Survey No. 68, Dhanot, Ta- Kalol

To, **Aud Id**:1122

**Auditor Name**: Swarnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2020-21**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarnim Startup and Innovation University** (1122) shall carry out Environment audit work of M /s **Chhatral Enviroment Management System Pvt Ltd**(1435) situated at Plot No. 2/3, Survey No. 68, Dhanot, Ta- Kalol. for the financial year 2020-21

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

Digitally signed by Ragin Ravindrabhai Shah
DN: c=IN, o=Personal, title=4505, pseudonym=f22ef4bbb1345d2e5bb44d53eedd1fcce, 2.5.4.20=f2e4487445a03b76e889e3bee0fc815a9f58d8942de4f9537c58eeb40f795483, postalCode=380015, st=Gujarat, serialNumber=0f260a2fa77399ae82cdc5aebe10f5c47163c41741552ca366cbb74076fdd44b, cn=Ragin Ravindrabhai Shah
Date: 2024.10.10 10:45:46 +05'30'

To, **Gpcb Id**: 10653

**Industry Name**: Chhatral Enviroment Management System Pvt Ltd

**Plot No.**: Plot No. 2/3, Survey No. 68, Dhanot, Ta- Kalol

To, **Aud Id**:937

**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2020-21**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (937) shall carry out Environment audit work of M /s **Chhatral Enviroment Management System Pvt Ltd**(1435) situated at Plot No. 2/3, Survey No. 68, Dhanot, Ta- Kalol. for the financial year 2020-21

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

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**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

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Date: 2024.10.10 10:45:46 +05'30'

To, **Gpcb Id**: 10653
**Industry Name**: Concord Biotech Ltd.

**Plot No.**: Plot no. 1482-1486,
Trasad Road, Dholka,
Ahmedabad

To, **Aud Id**:1190
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2020-21**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1190) shall carry out Environment audit work of M /s **Concord Biotech Ltd.** (1435) situated at Plot no. 1482-1486, Trasad Road, Dholka, Ahmedabad. for the financial year 2020-21

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

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**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

Digitally signed by Ragin Ravindrabhai Shah
DN: c=IN, o=Personal, title=4505, pseudonym=f22ef4b0d1345d2e5bb44d53ee6d1fcce, 2.5.4.20=f2e4874d45a03b7ed89e3bee2fc815a9f58d8942de4f9537c58eeb4087f95148 3, postalCode=380015, st=Gujarat, serialNumber=0f260a2fa77399ae82cdc5aebe10f5c47163c41741552ca36dcbb74076fd6d44 8, cn=Ragin Ravindrabhai Shah
Date: 2024.10.10 10:45:46 +05'30'

To, **Gpcb Id**: 10653
**Industry Name**: NOVEL SPENT ACID MANAGEMENT

**Plot No.**: PLOT NO.8002 TO 8010,8031-8036,8040-8044, PHASE-2, GIDC VATVA, AHMEDABAD:382445

To, **Aud Id**:1008
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2020-21**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1008) shall carry out Environment audit work of M /s **NOVEL SPENT ACID MANAGEMENT**(1435) situated at PPLOT NO.8002 TO 8010,8031-8036,8040-8044, PHASE-2, GIDC VATVA, AHMEDABAD:382445. for the financial year 2020-21

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

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**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

Digitally signed by Ragin Ravindrabhai Shah
DN: c=IN, o=Personal, title=4505, pseudonym=f22ef4bbb1345d2e5bb44d53eedd1fcce, 2.5.4.20=f2e4f8744f45a03b76d89e3bee6fd83a9f58d8942de4f9537c58eeb40f795483, postalCode=380015, st=Gujarat, serialNumber=0f260a2fa77399ae82cdc5aebe10f5c47163c61741552ca36dcbb74076fd6944f8, cn=Ragin Ravindrabhai Shah
Date: 2024.10.10 10:45:46 +05'30'

To, **Gpcb Id**: 10653

**Industry Name**: Tata motors Ltd. Vendor Park- CETP

**Plot No.**: Revenue Survey No. 1, Village: North Kotpura, Ta:Sanand, Dist: Ahmedabad

To, **Aud Id**:1169

**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2020-21**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1169) shall carry out Environment audit work of M /s **Tata motors Ltd. Vendor Park- CETP** (1435) situated at Revenue Survey No. 1, Village: North Kotpura, Ta:Sanand, Dist: Ahmedabad. for the financial year 2020-21

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

Digitally signed by Ragin Ravindrabhai Shah
DN: c=IN, o=Personal, title=4505, pseudonym=f22ef4b0d1345d2e5bb44d53ee6d1fcce, 2.5.4.20=f2e4874d45a03b7ed89e3bee5fc815e9f5f68942de4f9537c58eeb407f95148, postalCode=380015, st=Gujarat, serialNumber=0f260a2fb77399ae82cdc5aebe10f5c47163c41741552ca365cbb74076fd6d44fc, cn=Ragin Ravindrabhai Shah
Date: 2024.10.10 10:45:46 +05'30'

To, **Gpcb Id**: 10653
**Industry Name**: Jay Chemical Industries Ltd (Unit-3)

**Plot No.**: 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170

To, **Aud Id**: 1349
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1349) shall carry out Environment audit work of M /s **Jay Chemical Industries Ltd (Unit-3)** (**10653**) situated at Plot No. 109/220, Phase 2, GIDC Vatva, Ahmedabad 382445 for the financial ye

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Jay Chemical Industries Ltd (Unit-3)

**Plot No.**: 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170

To, **Aud Id**: 1228
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1228) shall carry out Environment audit work of M /s **Jay Chemical Industries Ltd (Unit-3)** (**10653**) situated at Plot No. 109/220, Phase 2, GIDC Vatva, Ahmedabad 382445 for the financial ye

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Matangi Industries LLP

**Plot No.**: Plot No. 28, Phase 2, GIDC Vatva, Ahmedabad 382445

To, **Aud Id**: 1056
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1349) shall carry out Environment audit work of M /s **Matangi Industries LLP** (**1056**) situated at Plot No. 28, Phase 2, GIDC Vatva, Ahmedabad 382445 for the financial year 2019-20

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Odhav Enviro Project Ltd.

**Plot No.**: 25, 12-B, GIDC Odhav

Dist:Ahmedabad - 382415

To, **Aud Id**: 1011
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1011) shall carry out Environment audit work of M /s **Odhav Enviro Project Ltd.** (**10653**) situated at Plot No. 25, 12-B, GIDC Odhav, Ahmedabad 382415 for the financial year **2019-20** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653

**Industry Name**: Rhythm Biocare(Common Biomedical Waste Treatment Facility)

**Plot No.**: Survey No.331, Chadotar gadh Road, Vedancha-385511, Ta:- Palanpur, Dist:- Banaskantha

To, **Aud Id**:1540

**Auditor Name**: Swarnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarnim Startup and Innovation University** (1540) shall carry out Environment audit work of M /s **Rhythm Biocare(Common Biomedical Waste Treatment Facility)** (1435) situated at Survey No.331, Chadotar gadh Road, Vedancha- 385511, Ta:- Palanpur, Dist:- Banaskantha. for the financial year 2019-20

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

**5.**The environment auditor shall Upload Report in XGN as per formate of audit report prescribed in environment audit Scheme.within 15 day from date of monitoring carried out in industry.Non compliance in this regards will attract legal actions under prevailing rule and regulation,which may lead to de-recognition as Environment Auditor.

**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653
**Industry Name**: Sanand Eco Project Ltd

**Plot No.**: 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170

To, **Aud Id**: 1124
**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway, Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1114) shall carry out Environment audit work of M /s **Sanand Eco Project Ltd.** (**10653**) situated at Plot No. 172, Near Ajanta Industrial Estate, Vasana-Iyava, Sanand 382170 for the financial year **2019-20** with the following terms and conditions:

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

**4.** In case of excess charges to the industry by the auditor, under the Environment Audit Scheme, the auditor shall be liable for legal actions under prevailing rules and regulations , which may lead to de-recognition as Environment Auditor.

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**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

To, **Gpcb Id**: 10653

**Industry Name**: The Bavla Eco Project.
Jal Shuddhikaran sahakari Mandli Ltd.(CETP)

**Plot No.**: Survey No. 1440/1,
Opp.Vijyalaxmi Rice Mill, Bavla,
Ahmedabad-382220.

To, **Aud Id**:1435

**Auditor Name**: Swarrnim Startup and Innovation University

At Post-Bhoyan Rathod, Opp. IFFCO (ONGC WSS), Adalaj-Kalol Highway,
Gandhinagar-382420

**Phone** : 9016931688

**Subject**: Allotment Of Auditor Vice versa Industry under Environment Audit Scheme for the year **2019-20**

The Hon'ble High Court of Gujarat introduced the Environment Audit Scheme in its order dt 20 / 12 / 1996 in (Misc. Civil Application No. 1863 of 1995 with Misc. Civil Application No. 1967 of 1995 with Misc. Civil Application No. 93 of 1995 and in its order dated 13/3/1997) Special Civil Application No. 770 of 1995.

The Environment Audit Scheme modified vide Office Order No. GPCB / EAS - C- 28 / 301928 Dated: 23-01-2015.

Without prejudice to the power of this Board under the Environment Acts, this is to inform you that **Swarrnim Startup and Innovation University** (1435) shall carry out Environment audit work of M /s **The Bavla Eco Project. Jal Shuddhikaran sahakari Mandli Ltd.(CETP)** (1435) situated at Survey No. 1440/1, Opp.Vijyalaxmi Rice Mill, Bavla, Ahmedabad-382220. for the financial year 2019-20

**1.** The Industry shall allow environment auditor to carry out environment audit work and shall provide relevant data and documents required for environment audit work as per Environment Audit Scheme.(Which Is Available on www.gpcb,gov.in)

**2**. The Industry shall pay environment audit fee to the assigned environment auditor as per the provision of Office Order No. GPCB / EAS -C-28 / 301928 dated: 23-01-2015.

**3**. Any non - payment towards environment audit work to the auditor by the industry , shall be liable for legal actions under prevailing rules and regulations.

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**6.**The auditor shall prepare environment audit report on the environment management system as per Environment audit scheme

**7.** The Environment audit report shall be submitted by 30th June, 2024.

**For and on behalf of**
**Gujarat Pollution Control Board**

**Place:** Gandhinagar

D. M. Thaker.

**(Member Secretary)**

Swarrnim Startup & Innovation University Bhoyan Rathod, Gandhinagar

Ragin Ravindrabhai Shah

Digitally signed by Ragin Ravindrabhai Shah
DN: c=IN, o=Personal, title=4505, pseudonym=02aef98b114542e5bb44d53ee4d1fcce, 2.5.4.20=f2d4874d4a5d2b7bd89e3bee9630b9e95408942dc4f9537c58eeb4002f291483, postalCode=380015, st=Gujarat, serialNumber=0f2600a2fa7730fee826dcaebe10f5cf7183c41741552ca365cbb74076b64406, cn=Ragin Ravindrabhai Shah
Date: 2024.10.10 10:45:46 +05'30'