BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
WESTERN ZONE, PUNE
Original Application No.197/2023(WZ)-
Earlier Original Application No.677/2023(PB)

News item appearing in Hindustan Times dated 10.10.2023 titled "Koparkhairane, Vashi residents plan to wage battle against chemical factory pollution". .....Applicant

Versus

Central Pollution Control Board & Ors. .... Respondent(s)

COMPLIANCE AFFIDAVIT ON BEHALF OF RESPONDENT NOs.2 MAHARASHTRA POLLUTION CONTROL BOARD

I, Satish H. Padwal, age about 52 years, Occupation-service, the Regional Officer of the Maharashtra Pollution Control Board, Navi Mumbai having my office at 7th Floor, Raigad Bhavan, Sector 1, CBD Belapur, MPCB, Navi Mumbai, do hereby state on solemnly affirmation as under: -

I am presently working as the Regional Officer, Navi Mumbai, with the Maharashtra Pollution Control Board, I have gone through the order dated 9/1/2024, 2/4/2024 & 30/5/2024 passed by Hon'ble National Green Tribunal (WZ) Pune & submitting affidavit on behalf of Respondent No. 2.

1. I say and submit that, in Thane Belapur, Trans Thane Creek, MIDC area Navi Mumbai, there are 167 No of chemical units are

in operational, out of which 14 Industries are large scale chemical units, 5 Industries are medium scale chemical units and 148 Industries are small scale chemical units are in operation.

2. I say and submit that, the team of Regional Director Office, Central Pollution Control Board (CPCB), Pune had visited to Thane Belapur Industrial Estate and adjacent residential area of Kopari Gaon, Koparkhirane, Vashi area on 28.11.2023 and carried out a survey in the alleged areas under reference. The Regional Director, CPCB, Pune has submitted reply affidavit before this Hon'ble Tribunal on 13.12. 2023. In the said reply to affidavit CPCB has mentioned the Geographical condition of Navi Mumbai city TTC industrial area, Industrial profile, Windrows direction, Inferences based on CAAQM data of nearby CAAQM stations, Metrological data. CPCB has submitted odor and Air pollution related specific mitigation plan for Navi Mumbai area and framed sector wise specific mitigation plan with short term and long-term measures to control odor and Air pollution.

3. I say and submit that, CPCB has identified the sectors causing odor problem in Navi Mumbai area in its status reports, which are as follows:-

1) Solvent recovery, Hazardous Waste recycler.
2) Chemical allied industries, Bulk drug and chemical units using solvent.
3) Common Effluent Treatment Plant (CETP).
4) Common Hazardous Waste Management Facility
5) Municipal Solid Waste Management facility.

6) Local body domestic sewage Treatment Facility.

The said report includes sector wise odor reasons, their short term and long-term mitigation plan along with the responsible stakeholders. A copy of the said report has already been submitted to the Hon'ble Tribunal. As per the recommendation/measures suggested by CPCB in its report, the Respondent Board has issued directions to the industries, Common facilities and Navi Mumbai Municipal Corporation.

4. I say and submit that, as per the status report submitted CPCB, the action taken report/compliance report of the Respondent Board is as follows: -

a. The Respondent Board has identified and prepared the database of 20 Nos. of industries. Out of 167 chemical industries and 4 common facilities which are odor emanating sector in TTC MIDC, Navi Mumbai area is enclosed and marked as an **Annexure A.**

b. The Board officials have carried out inspections for regular surveillance inspection of industries/solvent recyclers.

c. For monitoring of Air pollution, the Respondent Board has already installed 5 Nos. of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) at various locations in Navi Mumbai area i.e. at MIDC Mahape, Kopari Gaon, Sanpada, Nerul and CBD Belapur.

d. The Respondent Board is already in the process of modifying consent conditions for switching over to cleaner fuels (PNG) instead of coal and furnace oil etc. Also most

of the solvent based industries have installed VOC analyzer, gas detection system.

e. For implementation of short term and long-term action plan recommended by CPCB the Respondent Board has issued direction u/s 33A of the Water (Prevention and Control of Pollution) Act, 1974 and u/s 31A of the Air (Prevention and Control of Pollution) Act, 1981 as follows: -

Sr. No.	Sector	No of Industries	Direction issued.
1	Solvent recovery, Hazardous Waste recycler.	5	5
2	Chemical allied industries, Bulk Drug and chemical units using solvent.	15	15
3	Thane Belapur Common Effluent Treatment Plant (CETP)	1	1
4	Trans Thane Creek Common Hazardous Waste Management Facility (TTCWMA) TTC Industrial area, Mahape.	1	1
5	Navi Mumbai Municipal Corporation (Solid Waste Management facility)	1	1
6	Navi Mumbai Municipal Corporation (Domestic sewage Treatment Facility)	1	1

5. I say and submit that the industries have replied to the said proposed directions stating various measures taken by them towards compliance of mitigation measures to control odor and air pollution in the area. The list of industries to whom the directions have been issued and compliance made by them along with the copies of reply received from the industries are enclosed and marked as an **Annexure B collectively**.

6. I say and submit that the Average Air Quality Index (AQI) in the month of May 2024 to July 2024 at Navi Mumbai (Kopari Gaon, Sanpada, CBD Belapur, Nerul and Mahape) indicates as good to moderate. A copy of the Results showing Daily Air Quality Index (AQI) is enclosed herewith and marked as **Annexure- C.**

Solemnly affirmed on this 04th day of Sept. 2024 at Navi Mumbai,

For & on behalf respondent No. 2
Maharashtra Pollution Control Board

(Satish H. Padwal)
Regional Officer- MPCB, Navi Mumbai,

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NOTARY SURESH N. KAMBLE DIST. THANE, MAHARASHTRA REGD. NO. 5742 EXP.DT. 21/04/2028 GOVT. OF INDIA

BEFORE ME
4/9/2024
SURESH N. KAMBLE
ADVOCATE & NOTARY
(Govt. Of India)

Register Sr. No. 5 881/2024
- 4 SEP 2024

List of Direction issued regarding chemical and solvent.

SRO Navi Mumbai-1 & 2

Sr. No.		Name and Adddress	PD issued on	ID issued on
1	Sector 1- Solvent recovery unit	M/s. Beetachem Industries Pvt Ltd, Plot no. D-177, MIDC Turbhe, Nm	28.12.2023	21.02.2024
		M/s. Darshan Chemicals, Plot No.A-38, MIDC Turbhe, NM	28.12.2023	21.02.2024
		M/s. Raigad Chemicals Pvt Ltd, Plot no. W-181, MIDC Turbhe, Nm	28.12.2023	21.02.2024
		M/s. Darshan Chemicals, Plot No. D-29/3, MIDC Turbhe, NM	28.12.2023	21.02.2024
		M/s. Maha recyclon Industries Plot No. W-278 A, MIDC Rabale, navi Mumbai.	15.01.2024	21.02.2024
2	Sector 2- Chemical alligned industries having traces of organic solvents in effluent.	M/s. Amines & Plasticizers Limited, Plot no. D-21/21A, MIDC Turbhe, Nm	12.01.2024	21.02.2024
		M/s. Arkema Chemicals India Pvt Ltd. Plot no. D-43(1), D-43(5), MIDC Shiravane	12.01.2024	21.02.2024
		M/s. Gramercy Trade Industries Pvt Ltd, Plot No. D-2/1, MIDC turbhe	29.12.2023	21.02.2024
		M/s. Korde Chemicals Pvt Ltd, Plow No. W-13, MIDC Pawne, Nm	29.12.2023	21.02.2024
		M/s. Mehk Chemicasl Pvt Ltd, Plot No. C-159, MIDC Pawne, NM	29.12.2023	21.02.2024
		M/s. NOCIL Ltd, Plot No. C-37, MIDC Pawne, Navi Mumbai.	04.01.2024	21.02.2024
		M/s. N.S. Chemicals Pvt Ltd, Shed No. W-3 & 4, MIDC Pawne	29.12.2023	21.02.2024
		M/s. Paras Organics Pvt Ltd, Plot No. D-119, MIDC Shiravane, Nm	23.02.2024	12.04.2024
		M/s. Esters and Solvents, Plot No. W-180, MIDC Pawne, Nm	29.12.2023	21.02.2024
		M/s. Piramal Pharma Ltd (Hemmo Pharmaceturicals Pvt Ltd), Plot no. C-43, MIDC Pawne	29.12.2023	21.02.2024
		M/s. Precise Biopharma Pvt Ltd, Plot No. C-384, MIDC Turbhe, NM	29.12.2023	10..05.2024
		M/s. Precise Chemipharma Pvt Ltd, Plot No. D-90/3, MIDC Turbhe	12.01.2024	21.02.2024
		M/s. RPG Life Science Limited, Plot no. 25, MIDC Pawane, Nm	29.12.2023	21.02.2024
		M/s. Shridi Chemicals Pvt Ltd, Plot No. C-118, MIDC Pawne, NM	01.02.2024	21.02.2024
		M/s. Zydus Takeda Healthcare Pvt Ltd, Plot No. C-4, MIDC Pawne, NM	29.12.2023	21.02.2024
3	Sector- Common effluent treatment plant	Common effllluent treatment plant, (Thane Belapur Association) Plot No. P-18 & 60, Khairane, MIDC Thane Belapur Road, Navi Mumbai	17.01.2024	19.04.2024
4	Common Hazardous waste treatment and safe disposal facility	Trans Thnae Creek Waste Management Assosciation, Navi Mumbai.	28.02.2024	19.04.2024
5	Municipal solid waste management facility	M/s. Executive Engineer (Environment), Navi Mumbai Municipal Corporation (MSW Processig facility) NMMC, Navi Mumbai.	24.01.2024	24.01.2024
6	Domestic sewage management	M/s. Executive Engineer (Environment), Navi Mumbai Municipal Corporation NMMC, Navi Mumbai.	24.01.2024	24.01.2024

Information in respect of Para No. 4 of the Affidavit submitted on 20.03.2024 (Sector- Solvent recovery, Hazardous Waste recycler, Bulk Drug and chemical units using solvent.)

Sr. No.	Name of Industry	odor reason	Direction issued on	Mitigation measures	Verified compliance
1	M/s. Beetachem Industries Pvt Ltd, Plot no. W-177, MIDC Turbhe, Navi Mumbai.	1. Vapours of organic solvent during charging and discharging and process leakages. 2. Traces organic solvent from ETP. 3. Non operation of condenser.	28.12.2023	**Short term (1 year and above)-** 1. Identifying the odour causing sources. 2. Compliance of CPCB SOP prepared under Rule-9 of HOW (M & TM) Rules 2016 for solvent recovery. 3. Transfer of solvents (spent and recovered) should be carried by connecting vents through condenser and of closed pipelines. 4. Process vents to be connected through double condenser. 5. Process vents of condenser should be adequate height 6. Process vents of condenser should pass through absorption media like activated carbon. 7. Pumps shall be provided with mechanical seals to prevent leakages. 8. Regular monitoring of VOCs shall be carried out in the work zone area and ambient air. 9. Implementation of LDAR (Leakage Detection and Repair) to control VOCs emissions. 10. Total losses of solvent should not be more than 5%. 11. Condenser system for control of VOC emission at the vents of all the potential storage tanks. L**ong term (1 year and above)** Installation of floating roof tanks for solvent (spent and recovered) storage to minimize fugitive emission	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6.Yes 7. NA, as vaccum transfer provided. 8. Yes 9. Yes 10. Yes 11. Yes No. Underground tank provided.
2	M/s. Darshan Chemicals, Plot No.A-38, MIDC Turbhe, Navi Mumbai	1. Vapours of organic solvent during charging and discharging and process leakages. 2. Traces organic solvent from ETP. 3. Non operation of condenser.	28.12.2023	**Short term (1 year and above)-** 1. Identifying the odour causing sources. 2. Compliance of CPCB SOP prepared under Rule-9 of HOW (M & TM) Rules 2016 for solvent recovery. 3. Transfer of solvents (spent and recovered) should be carried by connecting vents through condenser and of closed pipelines. 4. Process vents to be connected through double condenser. 5. Process vents of condenser should be adequate height 6. Process vents of condenser should pass through absorption media like activated carbon. 7. Pumps shall be provided with mechanical seals to prevent leakages. 8. Regular monitoring of VOCs shall be carried out in the work zone area and ambient air. 9. Implementation of LDAR (Leakage Detection and Repair) to control VOCs emissions. 10. Total losses of solvent should not be more than 5%. 11. Condenser system for control of VOC emission at the vents of all the potential storage tanks. L**ong term (1 year and above)** Installation of floating roof tanks for solvent (spent and recovered) storage to minimize fugitive emission	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. No 7. Yes 8. Yes 9. Yes 10. Yes 11. Yes Under consideration.

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3	M/s. Raigad Chemicals Pvt Ltd, Plot no. W-181, MIDC Turbhe, Navi Mumbai	1. Vapours of organic solvent during charging and discharging and process leakages. 2. Traces organic solvent from ETP. 3. Non operation of condenser.	28.12.2023	**Short term (1 year and above)-** 1. Identifying the odour causing sources. 2. Compliance of CPCB SOP prepared under Rule-9 of HOW (M & TM) Rules 2016 for solvent recovery. 3. Transfer of solvents (spent and recovered) should be carried by connecting vents through condenser and of closed pipelines. 4. Process vents to be connected through double condenser. 5. Process vents of condenser should be adequate height 6. Process vents of condenser should pass through absorption media like activated carbon. 7. Pumps shall be provided with mechanical seals to prevent leakages. 8. Regular monitoring of VOCs shall be carried out in the work zone area and ambient air. 9. Implementation of LDAR (Leakage Detection and Repair) to control VOCs emissions. 10. Total losses of solvent should not be more than 5%. 11. Condenser system for control of VOC emission at the vents of all the potential storage tanks. L**ong term (1 year and above)** Installation of floating roof tanks for solvent (spent and recovered) storage to minimize fugitive emission	As per reply received from industry dated 11.06.2024 against the directions issued by the Board, industry mentioned that industry has decided to remove the activity of technical distillation and rectification of solvents from point No. 3 of consent of M/s. Raigad Chemical Pvt. Ltd. Industry also mentioned that industry will not obtained permission for distillation or rectification activity under Rule No. 9 of Hazardous and other waste (M&TM) Rules 2016.
4	M/s. Darshan Chemicals, Plot No. D-29/3, MIDC Turbhe, Navi Mumbai	1. Vapours of organic solvent during charging and discharging and process leakages. 2. Traces organic solvent from ETP. 3. Non operation of condenser.	28.12.2023	**Short term (1 year and above)-** 1. Identifying the odour causing sources. 2. Compliance of CPCB SOP prepared under Rule-9 of HOW (M & TM) Rules 2016 for solvent recovery. 3. Transfer of solvents (spent and recovered) should be carried by connecting vents through condenser and of closed pipelines. 4. Process vents to be connected through double condenser. 5. Process vents of condenser should be adequate height 6. Process vents of condenser should pass through absorption media like activated carbon. 7. Pumps shall be provided with mechanical seals to prevent leakages. 8. Regular monitoring of VOCs shall be carried out in the work zone area and ambient air. 9. Implementation of LDAR (Leakage Detection and Repair) to control VOCs emissions. 10. Total losses of solvent should not be more than 5%. 11. Condenser system for control of VOC emission at the vents of all the potential storage tanks. L**ong term (1 year and above)** Installation of floating roof tanks for solvent (spent and recovered) storage to minimize fugitive emission	1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6.Yes 7. Yes. 8. Yes 9. Yes 10. Yes 11. Yes Under consideration.

5	M/s. Maha recyclon Industries Plot No. W-278 A, MIDC Rabale, navi Mumbai.	1. Vapours of organic solvent during charging and discharging and process leakages. 2. Traces organic solvent from ETP. 3. Non operation of condenser.	15.01.2024	**Short term (1 year and above)-** 1. Identifying the odour causing sources. 2. Compliance of CPCB SOP prepared under Rule-9 of HOW (M & TM) Rules 2016 for solvent recovery. 3. Transfer of solvents (spent and recovered) should be carried by connecting vents through condenser and of closed pipelines. 4. Process vents to be connected through double condenser. 5. Process vents of condenser should be adequate height 6. Process vents of condenser should pass through absorption media like activated carbon. 7. Pumps shall be provided with mechanical seals to prevent leakages. 8. Regular monitoring of VOCs shall be carried out in the work zone area and ambient air. 9. Implementation of LDAR (Leakage Detection and Repair) to control VOCs emissions. 10. Total losses of solvent should not be more than 5%. 11. Condenser system for control of VOC emission at the vents of all the potential storage tanks. L**ong term (1 year and above)** Installation of floating roof tanks for solvent (spent and recovered) storage to minimize fugitive emission	1 to 10 -Complied 11 not complied. In under process

Information in respect of Para No. 4 of the Affidavit submitted on 20.03.2024 (Sector- Chemical allied industries)					
Sr. No.	**Name of Industry**	**odor reason**	**Direction issued on**	**Mitigation measures**	**Verified compliance**
1	M/s. Amines & Plasticizers Limited, Plot no. D-21/21A, MIDC Turbhe, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	12.01.2024	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.Yes 6.Yes 7.Yes 8.Yes 9.Yes 10. Yes Under consideration.
2	M/s. Arkema Chemicals India Pvt Ltd. Plot no. D-43(1), D-43(5), MIDC Shiravane, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	12.01.2024	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.NA 6.Yes 7.Yes 8.Yes 9.Yes 10. Yes Under consideration.

3	M/s. Gramercy Trade Industries Pvt Ltd, Plot No. 2/1A, MIDC turbhe, Navi Mumbai.	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.No, Process vents are connected to the flare. 4.Yes 5.NA 6.No 7.Yes 8.Yes 9.Yes 10. Yes Industry has submitted safe closure plan.
4	M/s. Korde Chemicals Pvt Ltd, Plow No. W-13, MIDC Pawne, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.NA 6.Yes 7.Yes 8.Yes 9.Yes 10. Yes In process

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5	M/s. Mehk Chemicasl Pvt Ltd, Plot No. C-159, TTC Industrial area, MIDC Pawne, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.In process 4.Yes 5.NA 6.In process 7.Closed Gutter provided 8.NA 9.NA 10. NA In process
6	M/s. Nocil Ltd, Plot No. C-37, MIDC Pawne, Navi Mumbai.	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	04.01.2024	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1. Yes 2. Yes. 3.Yes . 4. Yes 5. Yes. 6. Yes 7. Yes, 8. Yes 9. Yes 10. Yes In Process

7	M/s. N.S. Chemicals Pvt Ltd, Shed No. W-3 & 4, MIDC Pawne, Navi Mumbai.	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.NA 4.NA 5.NA 6. NA 7.Yes 8.NA 9.NA 10. No In process.
8	M/s. Paras Organics Pvt Ltd, Plot No. D-119, MIDC Shiravane, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	23.02.2024	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.NA 4.Yes 5.NA 6.Yes 7.Yes 8.Yes 9.NA 10. Not use of sulfurous compounds and ammonia. Work in progress

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9	M/s. Esters and Solvents, Plot No. W-180, MIDC Pawne, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.No, Connected to caustic scrubber 4.Yes 5.NA 6.In process 7.Yes 8.No 9.Yes 10. Yes In process.
10	M/s. Piramal Pharma Ltd (Hemmo Pharmaceuticals Pvt Ltd), Plot no. C-43, MIDC Pawne, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.Yes 6.No 7.Yes 8.NA 9.Not handling odorous chemical 10.Filter press provided In process

11	M/s. Precise Biopharma Pvt Ltd, Plot No. C-384, TTC Industrial Area, MIDC Pawane, Navi Mumbai.	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.No(In process) 4.Yes 5.NA 6.Yes 7.Yes 8.Alum and Polyelectrolyte 9.No (Primary , Secondary and tertiary treatment) 10.Alum and poly treatment used to reduse degressing of sulphurous compound. In process
12	M/s. Precise Chemipharma Pvt Ltd, Plot No. D-90/3, MIDC Turbhe, Navi Mumbai.	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	12.01.2024	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Work in progress. 4.Yes 5.Not any use of ammonia in process. 6.Yes 7.Yes 8. Yes 9.Yes 10. Yes Work in progress

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13	M/s. RPG Life Science Limited, 25, MIDC Land, Thane Belapur Road, Navi Mumbai.	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.NA 6.Yes 7.Yes 8.Yes 9.Yes 10. Yes In process
14	M/s. Shridi Chemicals Pvt Ltd, Plot No. C-118, MIDC Pawne, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	01.02.2024	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.NA 6.Yes 7.Yes 8.Yes 9.Yes 10.NA In process

15	M/s. Zydus Takeda Healthcare Pvt Ltd, Plot No. C-4, MIDC Pawne, Navi Mumbai	1. Ammonia leakage from process. 2. Traces of organic chemicals in effluent vaporises during aeration.	29.12.2023	**Short Term (Less than 1 year)** 1. Process vents to be connected through double condenser. 2. Process vents of condenser should be of adequate height. 3. Process vents of condenser should pass through absorption media like activated carbon. 4. Pumps shall be provided with mechanical seals to prevent leakages. 5. Implementation of LDAR to control NH3 emissions. 6. Removal of VOCs by air stripping before equalization tank. 7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages 8. Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank. 9. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. 10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H_2S, organic sulphides, organosulphur based compounds etc.) and ammonia. **Long term (1 year and above)** Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	1.Yes 2.Yes 3.Yes 4.Yes 5.Yes 6.MEE and ATFD provided 7.Yes 8.MEE and ATFD provided 9.NA 10.Yes In process

Information in respect of Para No. 4 fo the Affidavit submitted on 20.03.2024 (Sector- Common effluent treatment plant)					
Sr. No.	**Name of Industry**	**odor reason**	**Direction issued on**	**Mitigation measures**	**compliance**
1	Common effluent treatment plant, (Thane Belapur Association) Plot No. P-18 & 60, Khairane, MIDC Thane Belapur Road, Navi Mumbai.	a. Traces of organic chemicals in effluent vaporises during aeration b. Effluent lekage from chamber	17.01.2024	**Short Term (Less than 1 year)** a. Evaluation of the feasibility of a tertiary treatment system for CETP. b. Removal of VOCs by volatilization and air stripping at equalization tank. c. Removal of VOCs by volatilization and weir drop by clarifiers. d. Removal of VOCs by competing mechanisms of air stripping, biodegradation and adsorption on solids in aeration tank. e Partial recycling of settled aqueous activated sludge or mixed liquor from secondary clarifiers or aerobic bioreactors to the inlet of the CETP head works (screens, grit chamber, pumping station, primary clarifiers). f. Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system. g. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulphides, organosulphur based compounds etc.) and ammonia.	a. CETP already started exploring tertiary treatment facility by operating RO plant of capacity 100 CMD. feasibility study of a tertiary treatment is in process. b. CETP has installed 2 stage Air scrubbing system at effluent collection tanks. c & d. Work under process it will be completed by 6 months. e & f. CETP adopted recycle of sludge recycling at distrubution chamber of aeration tank. g. CETP provided modenized sludge thickners for primary and secondary sludge and decantation system.
				Long term (1 year and above) a. Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers biological/chemical. b. Development of adequate green belt along the periphery, especially in plot no. 18, near to highway & sector-11 of Vashi	a. Work under progress. b. CETP has planted 1000 Nos of trees in the premises and now planning Miayawaki forest project to platn additional 1150 Nos. of trees.
				Short term(less than 1 year) a. Preventive measures to control seepage, leakage from chambers of CETP & conveyance pipeline of raw and treated effluent. b. Regular O&M of effluent conveyance system. c. Provision of buffer storage tanks (for raw & treated effluent) with adequate, in case of breakage/blockage of effluent conveyance pipelines	a & b. Regular operation & mentainance of pipelines and chambers carried by MIDC. c. Buffer storage tank of capacity 600 M3 provided. Additional stand by clarifier of capacity 2500 M3 is provided.
				Long term (1 year and above) a. To submit time bound action plan for completion of laying new pipeline within the MIDC area.	MIDC has reported that 95 % work of remoduling of pipelines completed and remining work is under progress.

Information in respect of Para No. 4 of the Affidavit submitted on 20.03.2024 (Sector- Common Hazardous waste treatment and safe disposal facility.)					
Sr. No.	**Name of Industry**	**odor reason**	**Direction issued on**	**Mitigation measures**	**Verified compliance**
1	Trans Thnae Creek Waste Management Assosciation, Navi Mumbai.	a. Storage/stabillization hazardous waste. B. Management of leachate from secured land fill.	28.02.2024	**Short term (less than 1 year)** a. Good landfill practices viz. adequate compaction; Waste Management effective use of appropriate types of daily cover; Association progressive capping & restoration; effective landfill gas management. b. Mechanized cover system having arrangement of waste conveyor, mechanized mixing system with suction hood followed by scrubber. c. Mixing with backhoe loader having hood over the pit with suction arrangement followed by scrubber. d. MEE/MVR with VOC control system.	a, b & C. Complied. d. Common facility has planned to provide VOC control system to MVR.
				Long term (1 year and above) a. Compliance as per the CPCB Guidelines "Criteria for Hazardous Waste Landfills" 2001 w.r.t closure and post- closure maintenance plan	As it is a continue process compliance will be observed.

Information in respect of Para No. 4 of the Affidavit submitted on 20.03.2024 (Sector- Municipal solid waste management facility)					
Sr. No.	**Name of Industry**	**odor reason**	**Direction issued on**	**Mitigation measures**	**Verified compliance**
1	M/s. Executive Engineer (Environment), Navi Mumbai Municipal Corporation (MSW Processig facility) NMMC, Navi Mumbai.	a. Management of solid waste b. composting of solid waste c. Management of leachate from secured land fill.	24.01.2024	**Short Term (Less than 1 year)** a. Measures as per CPCB guidelines on odor monitoring corporation in urban MSW landfills. **Long term (1 year and above)** a. Development of waste to energy proposal for solid waste disposal on daily basis. b.Capping of legacy waste with extraction facility.	a. Deodorants are sprayed in the MSW plant and its vicinity every 3 to 5 times a day. a. NMMC has submitted that the waste to energy plant proposal to the GoM. Accordingly, expression of interest has been received by Oil and Natural Gas Corporation (ONGC) to set up Compressed Bio Gas (CBG) & Waste to Energy (WTE) plant on public private partership (PPP) model. The project is in approval stage and will be executed as early as possible. b. No legacy waste .

Information in respect of Para No. 4 of the Affidavit submitted on 20.03.2024 (Sector- Domestic sewage management)					
Sr. No.	**Name of Industry**	**odor reason**	**Direction issued on**	**Mitigation measures**	**Verified compliance**
1	M/s. Executive Engineer (Environment), Navi Mumbai Municipal Corporation NMMC, Navi Mumbai.	a. Untreated sewage at Kopari and Alok Nalah b. Accumulated sludge	24.01.2024	**Short term (less than 1 year)** a. Diversion of untreated sewage into existing STP for Corp treatment. b. In-situ bioremediation/ phytoremediation/ green bridge technology/microbial dosing/ soil scape filter technology/ floating island technology etc. of the Kopri & Alok nalah other nlahas where untreated domestic sewage is being discharged. c. De-sludging of accumulated sludge from the Kopri & Alok nalh and other nlahas where untreated domestic sewage is being discharged. d. Regular cleaning of nalahs for removal of debris, to ensure continuous flow without septic conditions. **Long term (1 year and above)** a.Establishment of sewerage system in the un-sewered area and its connectivity to existing STP/commissioning of new STP.	a.NMMC has replied that they are constructed toilets along with septic tank and sludge collected by mechanical suction machine from septic tank and treated near by STP. b.NMMC has proposed package treatment plant c. NMMC is propossing intereption and diversion schem to divert the dry weather flow from the Nalla to the existing sewerage system. Also, NMMC has took pre mansoon cleaning of nallas every year. d. Partially complied. NMMC has doing desilting of Nallah and removal of debris on regular basis every year. It is proposed. NMMC has prepared DPR for un serwered area for Digha to Turbhe including sewerage line network, sewerage pumping station and Swage Treatment Plant , and some of sewerage scheme is under execution

BEETACHEM INDUSTRIES

ISO 9001:2015

Office / Factory : W-177, TTC MIDC, Pawane Village, South Central Rd., Navi Mumbai - 400 710.
TEL. : 022-2087 7020 / 2087 9024 / 2087 9021 / 22 WEB : www.raoagroup.com Email : asrao@raoagroup.com
GST No.: 27AACFB8408M1Z8

Date: 17/01/2024

To,
The Regional Officer,
Raigad Bhavan, 7th Floor,
CBD Belapur, Navi Mumbai

Sub: Direction under the provisions of the water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Waste (Management and Trans-Boundary Movement) Rules 2016

Ref: Your Letter No. MPCB/RONM/2312280003 dated 28/12/2023

Dear Sir,

We have received your letter regarding VOC and fugitive emission. This is to notify you that we have complied with all points mentioned in CPCB SOP under Rule 9 of HOW (M&TM) Rules 2016.

Being attached to this letter is:

a) Attached authorization Under Rule 9
b) Attached Registration Passbook
c) Presentation given to MPCB on compliance of above this presentation details point wise compliance to CBCB Regulations. This presentation also includes photography evidence of compliance of CPCB norms.

With regards to transfer of solvents from underground storage Tanks, Tankers, Drums to vessels and back its strictly done in a closed loop system where all vents from tankers drums, underground tanks are connecting to VOC system. (please see photograph given in presentation Page No. 9 and 10)

We have developed state of the art VOC system where in all vents of reactors, tankers, underground tanks, drums, condenser, receivers are connected. This VOC system includes an additional chilled condenser (operation temperature 5^0C) to reduce and condenser all fugitive emissions. Further after the secondary vent condenser we have attached activate charcoal column scrubber to absolutely minimize any emissions and odor. Furthermore, there is VOC sensor and detector attached to the end of charcoal scrubber to measure if any emissions are present. The VOC sensor is an online sensor and has capability to be directly connected to MPCB server.

Regional Officer Navi Mumbai
Maharashtra Pollution Control Board.
Raigad Bhavan, 7th Floor,
Sector 11, C.B.D. Belapur,
Navi Mumbai 410614.

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GST No.: 27AACFB8408M1Z8

The vent from the VOC system its set of height of 8 meter above the roof top of the plant. This is sufficient as norms as per CPCB Rules is 6 meter (please see photograph given in presentation Page No.26).

VOC system include activated carbon scrubber (please see photograph given in presentation Page No.25).

Transfer of solvents in our plant is done via vacuum and so no chemical transfer pump are present.

We have online VOC sensor & detector at the end of our VOC system which helps to monitor VOC levels in work zone and ambient air. Additionally, we appoint third party lab (MOCFCC approved lab) for measurement of various parameters of Environment once every 3 months (Attached are the lab reports).

Material balance of batches show that solvent loss is approx. 2-3% for every batch which is much less then what is expected by you.

All of our tanks are underground and have zero chances of leakage all of their vents are tightly close whenever underground tanks are in operation there are connecting to VOC system. This system is better than floating roof tanks for Solvents.

We have also attached two way Scada system which continuously monitors & control effluent discharged.

Hope the above description are in line with your requirements. If any additional information is required, please let us know immediately.

Thanking you,

Yours Faithfully,

For Beetachem Industries

Authorized Signatory

BEETACHEM INDUSTRIES NAVI MUMBAI

DARSHAN CHEMICALS
UNIT - I

SPECIALISED IN : HIGH VACCUM FRACTIONAL DISTILLATION

Regd. Office : Gami Industrial Park, Gala No. 4, Ground Floor, Plot No. C-39/A, Beside Krishna Steel Bus Stop, Pawane M.I.D.C., Navi Mumbai - 400 705. **T :** 9820573681

E : darshanchemicals@ymail.com | **W :** www.darshanchemicals.in

Date – 11/01/2024

To,

The Regional Officer,

Maharashtra Pollution Control Board,

Raigad Bhavan, 7th floor, Sector -11,

Belapur, Navi Mumbai- 400614.

Subject: Direction under the provisions of the Water Act 1974, Air Act 1981 and Hazardous & Other Waste(M & TM) Rules 2016.

Ref: MPCB/RONM/2312280002 dt.28/12/2023.

Dear Sir,

With reference to above subject matter our response to your valued directions toward specific mitigation plan for odor & air pollution industries sources in Thane Belapur Industrial Area, as per CPCB plan, we express our correlated activities to sustained the environment protection related activities and the continuous mandatory compliances/ provisions are as under,

Darshan Chemicals observed stringently the mandatory provisions prescribed above statute as well as guidelines prescribed under Standard Operating Procedures of Recycling/Recovery of Spent solvents by CPCB under Rule No.9 of Hazardous & Other Waste (M & TM) Rules 2016.

1. It is constantly ensured that hazardous wastes (spent Solvents) are procured from the industries who have valid Consent To Operate from SPCB as required under H & O W (M &TM) Rules 2016.

2. Darshan Chemicals is maintaining a passbook issued by the MPCB wherein the following details of each procurement of spent solvent shipment are entered;
   - Address of sender/industry
   - Date of dispatch
   - Quantity procured
   - Seal & signature of the sender on each manifest which forwarded while procuring the generated waste.
   - Date of received in the premises.

3. While receiving /entering the tankers/containers at Darshan Chemicals premises, the tankers/ containers are checked for any damages as well as observe the required seal to each container of material. Tankers/ Containers are maintained to standstill at least 20 minutes to discharge the generated static charges & in addition to minimize the generated vaporization of spent solvent while transportation of material.

Regional Officer Navi Mumbai
Maharashtra Pollution Control Board
Raigad Bhavan, 7th Floor,
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DARSHAN CHEMICALS
UNIT - I

SPECIALISED IN : HIGH VACCUM FRACTIONAL DISTILLATION

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4. Each vehicle entering to premises is check for the spark arrestor fitted to its engine exhaust.

5. Thereafter, collect the representative samples from tanker/ containers for material (spent solvent) quality confirmation. If it is as per our documented concurrence, then it shall be ready to transfer to our dedicated storage tanks/containers.

6. Workforce working on these jobs (sample collection, material shipping, and distillation operations) are exercise required Personal Protective equipment's (PPE) like hand gloves, goggle, helmet, safety shoes and nose mask / Breathing respirators equipment's in case of emergency as well as suitable apron to avoid exposure to solvent vapours/atmosphere.

7. Before initiating the transformation of spent solvent from received road tanker/containers, ensure that tanker shall be parked with adequate blocking arrangements to avoid any unwanted shifting while process of transportation of material as well as tanker engine key shall be deposited to security personnel; at that time appropriate earthing grounding arrangement is checked to tanker/containers.

8. Non- sparking tools are utilized to arranging unloading system of spent solvents from road tanker /containers to dedicated storage tanks. Display cautionary notice board while transferring the spent solvent activities.

9. Before loading & unloading processes of spent solvent from tanker to storage tank the vents of the respective tanks shall be connected to dedicated heat exchanger to confine generated solvent vapours to abate the air born contamination of environment.

10. The vents of the heat exchanger (condenser) are extended to rooftop of nearest work place.

11. Respective Primary Heat exchangers are circulated by cooled water, water flow through efficient system of cooling towers. Secondary Heat Exchanger are circulated with chilled water, connected through dedicated system of installed chiller. Primary as well as Secondary heat exchanger are checked for appropriate flow, regularly for their established efficacy.

12. The vents of the heat exchangers are attached with VOC adsorption entrap.

13. The installed online continues monitoring and data acquisition /recording system to each vent is precipitate to establish performance of concerned equipment's (e.g. heat exchanger, cooling tower, pumps and pipe lines) with respect to convinced emission level. The data acquisition system is supportive to generate/checkout preventive maintenance schedule as well as create intelligence itself to arrest /curtail the fugitive emissions.

DARSHAN CHEMICALS
UNIT - I

SPECIALISED IN : HIGH VACCUM FRACTIONAL DISTILLATION

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14. The full-fledged chemical analysis laboratory with advance devices are set up to support the process monitoring, functioning round the clock.

15. Entire operational area is covered by fire hydrant system with water & foam monitors, having 2.5lac litres of dedicated stationary water storage tank for fire combating system.

16. Apart from hydrant system, the required quantity of fire extinguishers is posted at appropriate locations. The thermal actuating carbon-dioxide gas system is installed at each vapour generating process unit.

17. The electrical distribution system around the manufacturing plant is installed as per the guidelines prescribed under Petroleum rules 2002 i.e. observing zone "1" area. Each electrical apparatus of existing plant and proposed plant are observed of flame proof as per I S 2148.

18. Earthing and bonding are provided to each pipeline of flammable material of existing plant. Earthing is also installed to all non-current carrying metallic parts of structures. Subsequently, the prevailing practices are monitor.

19. Electrical installation, cable insulation and earthing grids are certified periodically to avoid the source of ignition at hazardous operation area. Cable insulation of cables is checked periodically, by in-house maintenance crew.

20. Cathodic protection is provided for each structure to eliminate the danger of sparking due to generation of static charges, in a hazardous area and same practice is carried out.

21. Risk of the plant is curtailing by maintaining storage tank temperature & curbing the vapor generation by installing water sprinkler system to respective storage tank. Storage tanks are provided with nitrogen blanketing with breather valves. Vent of the breather valve is connected closed pipeline, having heat exchanger and continuous VOC monitoring system.

22. Effluent generated from cleaning of the vessels as well as from Cleaning in Place (CIP) of various associated equipment, effluent generated from cooling towers is treated at ETP to observed to achieve stipulated quality of treated effluent and then discharge to CEPT trough dedicated pipeline for further treatment.

DARSHAN CHEMICALS
UNIT - I

SPECIALISED IN : HIGH VACCUM FRACTIONAL DISTILLATION

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23. Residue generated from distillation process is packaged in containers & temporarily stored at covered dedicated hazardous waste storage area within the unit. The same hazardous waste is disposed of in CHWTSDF for disposal as authorized by MPCB, in case of Purchased Spent solvent as Hazardous waste. In case of Job work of spent solvent as Hazardous waste, the generated Hazardous waste (fraction/ residue) is transferred through Manifest with MPCB authorized transport vehicle and sent back to respective Vendor.

24. TFH systems & DG sets stacks as well as Ambient air quality monitoring for prescribed norms are submitting to MPCB as per consent norms.

25. PNG in-coming station & associating controlling system, for clean fuel to TFH system, is located at segregated room, just near the main entrance gate to keep closed watch on the activities.

26. Discarded drums/barrels are either sent back to respective unit from where the Spent solvent is procured or in case of purchased spent solvent hazardous material; utilized drums/barrels are sent to the CHWTSDF with proper memo.

27. Management of Darshan chemical is maintaining the records of recyclable waste in form No.3 and submitting annual return to MPCB as per Form No.4 of the H & O W (M&TM) Rules 2016.

28. Established & designed LDAR work practices by the continuous monitoring VOC emissions from Vents as well as **Fugitive emission** (e.g. valve, flange and pump seal leaks, sampling systems etc.). These advanced **LDAR** supportive measures are not only curbed the environmental emission/ Health risk but to get early insinuation for enlarged tentative fire load which might turns into untold firestorm occurrence and followed by huge environmental damages / depletion of resources.

29. Beside with continues VOC emission monitoring the temperature, pressure parameters of respective equipment's/ work stations / process are being consistently recorded on real-time basis with prearranged communication devices to have cascading effects of these parameters on regular operation.

30. On site Emergency preparedness Plan with Emergency Response Procedure (ERP) are organized and practiced during regular mock drills.

We hope the above-mentioned specific activities are in line with mitigation plan & directives of CPCB.

Thanking you,

For DARSHAN CHEMICALS

DARSHAN CHEMICALS NAVI MUMBAI

Authorised Signatory.

RAIGAD CHEMICALS PVT. LTD.

ISO 9001:2015

Office / Factory : W-181, TTC MIDC, Pawane Village, South Central Rd., Navi Mumbai - 400 710.
TEL. : 022-2087 7020 / 2087 9021 / 22 WEB : www.raoagroup.com Email : asrao@raoagroup.com

GST No.: 27AAACR5506R1ZX

Date: 11/06/2024

To,
Regional Officer,
Maharashtra Pollution Control Board,
CBD Belapur, Navi Mumbai

Sub: [redacted] Directions under section 33 (A) of Water (Prevention & Control of Pollution) Act, 1974 and/or u/s. 31A of Air (Prevention & Control of Pollution) Act, 1981

Ref: Directions issued on 28/12/2023

Dear Sir,

As per Consent granted by Maharashtra Pollution Control Board (UAN NO. MPCB-CONSENT_AMMENDMENT-0000013421/CR/2405000068), M/s. Raigad Chemicals Pvt Ltd were required to have permission under Rule No.9 of Hazardous and Other wastes (M & TM) Rules, 2016. However, we have decided to remove the activity of technical distillation and rectification of solvents from Point No. 3 of the consent. M/s. Raigad Chemicals Pvt Ltd have decided to stop the activity of distillation and rectification of solvents. Hence, we will not obtain permission for distillation or rectification activity under Rule No.9.

Furthermore, you are requested to recall the directions issued to M/s. Raigad Chemicals Pvt Ltd on 28/12/2023 regarding application for permission under Rule No.9 for the purpose of Technical Distillation/ Rectification of Solvent of 50 MT/M (From Pharmaceuticals: Job work of M/s. Zydus Nycomed, Pawane Village, Navi Mumbai as M/s. Raigad Chemicals Pvt Ltd will not be continuing with the above activity henceforth.

Regards,

Dr. A.S.Rao
Managing Director
Raigad Chemicals Pvt Ltd

RAIGAD CHEMICALS PVT. LTD. NAVI MUMBAI T.O.

DARSHAN CHEMICALS
UNIT - II

SPECIALISED IN : HIGH VACCUM FRACTIONAL DISTILLATION

Regd. Office : Gami Industrial Park, Gala No. 4, Ground Floor, Plot No. C-39/A, Beside Krishna Steel Bus Stop, Pawane M.I.D.C., Navi Mumbai - 400 705. **T :** 7738368377

E : darshanchemicals@ymail.com | **W :** www.darshanchemicals.in

Date-23/01/2024.

To,

The Regional Officer,

Maharashtra Pollution Control Board,

Raigad Bhavan, 7th floor, Sector -11,

Belapur, Navi Mumbai- 400614.

Subject: Direction under the provisions of the Water Act 1974, Air Act 1981 and Hazardous & Other Waste (M & TM) Rules 2016.

Ref: MPCB/RONM/23/2280007 dt.28122023.

Respected Sir,

With reference to above subject matter our response to your valued directions toward specific mitigation plan for odor & air pollution industries sources in Thane Belapur Industrial Area, we express our correlated activities to sustained the environment protection related activities and the continuous mandatory compliances/ provisions are as under,

Darshan Chemicals observed stringently the mandatory provisions prescribed under Water Act 1974, Air Act 1981. The consent to operate is granted for a period up to 31.03.2027.

However we have already surrender authorization for distillation of spent solvent under rule no.9 of Hazardous & other waste (M & TM) rules , 2016, bearing no.MPCB/RO (HQ) /HSMD/Autho/19/H & OW-16 dt.04.06.2019 along with submitting pass book as Unique no.0178 dt.04.06.2019 to The Sub-Rigional office Navi Mumbai on 28th April 2022.

Thus, we practiced & observed strictly the prescribed requisite mandatory provisions as well as critical routine preventive maintenance of each equipment norms, during regular operations, since from received chemicals to each stage of operations for mitigation of odor as well as air born contamination.

1. Identifying the odour causing sources.

   We have Installed T-VOC monitoring system to acknowledge the losses of the solvents.

2. Compliance of CPCB SOP prepared under Rule-9 of HOW (M & TM) Rules 2016 for solvent recovery.

   We are only removing the moisture from various pure grade chemicals. But we have followed the guidelines of CPCB.

DARSHAN CHEMICALS
UNIT - II

SPECIALISED IN : HIGH VACCUM FRACTIONAL DISTILLATION

Regd. Office : Gami Industrial Park, Gala No. 4, Ground Floor, Plot No. C-39/A, Beside Krishna Steel Bus Stop, Pawane M.I.D.C., Navi Mumbai - 400 705. **T :** 7738368377
E : darshanchemicals@ymail.com | **W :** www.darshanchemicals.in

3. Transfer of solvents (spent and recovered) should be carried by connecting vents through condenser and of closed pipelines
We have already installed VOC carbon entrant and majoring VOC. We have already provided chilled water circulation system by installing chilling plant.

4. Process vents to be connected through double condenser.
We have already provided primary having cooling tower water circulation & secondary condenser having by chilled water circulation.

5. Process vents of condenser should be adequate height
We have extended vents to top of the plant structure.

6. Process vents of condenser should pass through absorption media like activated carbon.
We have already installed to each vent through absorption media like activated carbon.

7. Pumps shall be provided with mechanical seals to prevent leakages.
Yes. We have installed mechanical seal to process pump.

8. Regular monitoring of VOCs shall be carried out in the work zone area and ambient air.
Yes. We have provided.

9. Implementation of LDAR (Leakage Detection and Repair) to control VOCs emissions.
Yes. We have observing LDAR system.

10. Total losses of solvent should not be more than 5%.
We have already achieving 96 % of solvent recovery.

11. Condenser system for control of VOC emission at the vents of all the potential storage Tanks
We have provided storage trap to the exhaust to the condenser.

12. Installation of floating roof tanks for solvent (spent and recovered) storage to minimize fugitive emission.
We have constructed the storage tank as per design criteria.

We hope, the above-mentioned specific activities are in line with mitigation plan of chemical vapour generation with support of routine equipment/gadgets preventive maintenance & as per your directives.

Thanking you,

For DARSHAN CHEMICALS

DARSHAN CHEMICALS NAVI MUMBAI

Authorised Signatory.

MAHA RECYCLOCHEM INDUSTRIES

CHEMICALS & SOLVENTS

Plot No. - W/278 (A), TTC Industrial Area, MIDC, Rabale, Thane – Belapur Road,
Navi Mumbai -400701. MB. – 79771738335
Email Id – maharecyclo@gmail.com

Date: 15/02/2024

Regional Office, Navi Mumbai
FTS No: 2402200150077
V | M | 8

To,
The Regional Officer,
Raigad Bhavan, 7th Floor,
CBD Belapur, Navi Mumbai

Sub: Direction under the provisions of the water (Prevention & Control of Pollution)
Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Waste (Management and Trans-Boundary Movement) Rules 2016

Ref: Your Letter No. MPCB/RONM/2401150005 dated 15/01/2024

Dear Sir,

We have received your letter regarding VOC and fugitive emission. This is to notify you that we have complied with all points mentioned in CPCB SOP under Rule 9 of HOW (M&TM) Rules 2016.

As per your letter details as under:

With regards to transfer of solvents from underground storage Tanks, Tankers, Drums to vessels and back its strictly done in a closed loop system where all vents from tankers drums, underground tanks are connecting to VOC system. **(Photograph Attached)**

All vents of reactors, tankers, underground tanks, drums, condenser, receivers are connected. This VOC system includes an additional chilled condenser (operation temperature 5^0C) to reduce and condenser all fugitive emissions. Further after the secondary vent condenser we have attached activate charcoal column scrubber to absolutely minimize any emissions and odor. Furthermore, there is VOC sensor and detector attached to the end of charcoal scrubber to measure if any emissions are present.

Sr. 2
02

MAHA RECYCLOCHEM INDUSTRIES

CHEMICALS & SOLVENTS

Plot No. - W/278 (A), TTC Industrial Area, MIDC, Rabale, Thane – Belapur Road,
Navi Mumbai -400701. MB. – 79771738335
Email Id – maharecyclo@gmail.com

The vent from the VOC system its set of height of above 6 meter above the roof top of the plant. **(photograph attached)**

VOC system include activated carbon scrubber **(photograph attached)**

Transfer of solvents in our plant is done via vacuum.

Material balance of batches show that solvent loss is approx. 2% for every batch which is much less then what is expected by you.

All of our tanks are underground and have zero chances of leakage all of their vents are tightly close whenever underground tanks are in operation there are connecting to VOC system. This system is better than floating roof tanks for Solvents.

Hope the above description are in line with your requirements. Please acknowledge of this letter.

Thanking you,

Yours Faithfully,

Surve

MAHA RECYCLEOCHEM INDUSTRIES

AMINES & PLASTICIZERS LIMITED

(ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 CERTIFIED COMPANY)

'D' BUILDING
SHIV SAGAR ESTATE
DR. ANNIE BESANT ROAD
WORLI, MUMBAI - 400 018, INDIA
PHONE : +91-22-6221 1000
FAX : +91-22-2493 8162
E-MAIL : info@amines.com

PLOT NO. D-21/21A, MIDC,
TTC INDUSTRIAL AREA,
TURBHE, NAVI MUMBAI - 400 705
PHONE : +91-22-6221 1200
+91-22-6221 1232

CIN : L24229AS1973PLC001446

Date: 22.01.2024

To,
The Regional Officer, Navi Mumbai
Maharashtra Pollution Control Board
Raigad Bhavan, 7 h Floor, Sector 11,
C.B.D. Belapur, Navi Mumbai - 400 614

Subject: Reply against direction under the provisions of the water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & other waste (Management and Trans boundary Movement) Rules 2016.

Reference: Notice No. MPCB/RONM/2401120003 dated 12.01.2024

Dear Sir
We M/s. Amines & Plasticizers Limited located at Plot No. D-21/21A, MIDC Turbhe, Navi Mumbai , MPCB granted us consent to operate vide No. Format1.0/CC/UAN No.0000151679/CR/2302002065 dated 28.02.2023 with certain terms & conditions which we have complied & same practice will have maintained.

With reference to the above direction & CPCB specific mitigation plan for odour & air pollution industries source in Thane Belapur Industrial Area our pointwise clarification is as below:

Short Term (Less than 1 year)

Sr. No.	Short term Mitigation plan	Current Status/action plan against mitigation plan
1	Process vents to be connected through a double condenser.	Our manufacturing process undergoes 2-3 atm pressure applied by Nitrogen which is very low pressure. After ensuring complete conversion and cooling the gases are released to the atmosphere through a water scrubber. As the process vent consists mainly of Nitrogen and unreacted RM/ product is in trace amount, a double condenser is not necessary. We regularly replace scrubber media to ensure 100% capture of trace compounds.
2	Process vents of condenser should be of adequate height.	We have provided 8 m above ground which is adequate as per statutory requirement.
3	Process vents of condenser should pass through absorption media like activated carbon.	All process vents connected to dedicated scrubbers consisting of water as absorbing media are utilized for complete removal of trace compounds from process vents.
4	Pump shall be provided with a mechanical seal to prevent leakage.	All pumps are provided with mechanical seal to prevent leakage.
5	Implementation of LDAR to control NH3 emissions.	We have provided LDAR to control NH3 emissions

6	Removal of VOCs by air stripping before equalization tank	Not Applicable in our case, as we have installed the VOC meter which is connected to the MPCB server. Based on VOC meter reading & regular air monitoring analysis reports from NABL & MOEF & CC laboratory there is no VOC emission from the plant. We have provided scrubbers to process vent in the plant area.
7	Odours wastewater stream shall be handled in a closed system from the source to primary treatment stages.	We provided an underground wastewater stream in a closed system from the plant to the primary treatment stage.
8	Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tanks	Not Applicable in our case, as we have installed the VOC meter which is connected to the MPCB server. Based on VOC meter reading & regular air monitoring analysis reports from NABL & MOEF & CC laboratory there is no VOC emission from the plant
9	Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CEPT, a typical liquid-based odor control system.	Not Applicable in our case, as we have installed the VOC meter which is connected to the MPCB server. Based on VOC meter reading & regular air monitoring analysis reports from NABL & MOEF & CC laboratory there is no VOC emission from the plant
10	Regular O&M of sludge thickness i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulphides, organosulphur based compounds etc.) and ammonia.	For accurate and timely detection of leaks we have provided LDAR system within chemical manufacturing plant area to ensure the compliance of emission.

Long term (1year and above)

Sr. No.	Long term Mitigation plan	Current Status/action plan against mitigation plan
1	Capping of various open –air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.	For degassing the ammonia/ unreacted chemical compound from the process after completion of reaction we have provided scrubbers to process vent. LDAR System implemented within chemical manufacturing areas to control NH3 & ethylene oxide emissions.

Considering the above clarification, we request you not to initiate any legal action against our unit. We assure you and continue our commitment to the Environment & the Public Health in general.

Thanking you.
Yours faithfully,
For Amines & Plasticizers Limited.

S. V. Badhe.
(President Plant Operation)

ACIPL/2024/002/MPCB 27th January 2024

To,
The Regional Officer,
Maharashtra Pollution Control Board,
Regional Office, Navi-Mumbai,
Raigad Bhavan, 7th Floor,
Sec-11, CBD Belapur,
Navi Mumbai – 400 614

Sub: Compliance for the proposed direction under The Water (P&CP) Act, 1974, Air (O&CP) Act, 1981 & Hazardous & other Waste (M&TBM) Rules, 2016.

Ref: Direction received vide letter no. MPCB/RONM/2401120005 on dated 21/01/2024

Respected Sir,

With respect to the reference and captioned subject we are in receipt of the Proposed Direction No. [MPCB/RONM/2401120005] dated [21/01/2024] issued by your office. We have precisely read the PD contents and hereby provide our reply as beneath:

SN	Direction content	Action plan
A	**Short term (less than 1 year)**	
1	Process vents to be connected through double condenser.	Complied. Process vents are connected to the surface condenser followed by the scrubber column.
2	Process vent condenser should be of adequate height.	Complied. Process vent condensers are designed for the sufficiently calculated surface area.
3	Process vent condenser should pass through absorption media like activated carbon.	Complied. Process vent emissions are scrubbed with the neutralizing scrubbing media suitable to process.
4	Pumps shall be provided with mechanical seals to prevent leakages.	Complied. The pumps involved in the chemical process are equipped with the double mechanical seal as well as magnetic drive pump.
5	Implementation of LDAR ton control NH3 emissions.	Noted. NH3 is not being generated or used in the factory.

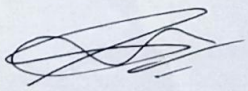
30/01/2024
Regional Officer Navi Mumbai
Maharashtra Pollution Control Board
Raigad Bhavan, 7th Floor
Sector 11, CBD Belapur
Navi Mumbai - 400 614

6	Removal of VOCs by air stripping before equalization tank.	Complied. Before influent sending to ETP it is being treated in stripper column for high COD stream removal.
7	Odor wastewater stream shall be handled in closed system from the source of primary treatment stages.	Complied. The influent generated from process is more based from aliphatic hydrocarbon, so no odor generation.
8	Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank.	Noted. Please refer action from Sr. No. 6 & 7.
9	Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tank of CETP, a typical liquid-based odor control system.	Complied. No aqueous activated sludge is being stored as it directly fed into dewatering unit.
10	Regular O&M of sludge thickeners i.e., treating the sludge with lime of iron salts or encourage thickening & reduce the degassing of sulfurous compounds (H2S, organic sulfides organosulfur based compounds etc.) and ammonia.	Complied. The mentioned coagulants (viz. lime & ferrous) are using for the primary treatment.
B	**Long term (1 year & above)**	
1	Capping of various open-air treatment system (collection tank, equalization tank) and venting with appropriate VOC traps/media-based scrubbers)	Noted. Please refer action from Sr. No. 6 & 7.

We hope you will find addressed action plan in line with the proposed direction. Hereby request you to not to initiate any action.

Thanking You,

For **Arkema Chemicals India Pvt. Ltd.,**



Authorized Signatory

Encl:

ion CHEMICALS

Ref. No: GTIPL/EHS/2024/03 **Date: 18th January 2024**

To,

The Regional Officer,

Maharashtra Pollution Control Board,

Raigad Bhavan, 7th Floor,

CBD Belapur, Navi Mumbai - 400614

Subject: **Action plan against Direction dated 29/12/2023**

Ref.: **Direction - MPCB/RONM/2312290004 29/12/2023**

Respected Sir,

As mentioned in above subject matter, we M/s Gramercy Trade Industries Pvt Ltd submitting herewith action plan against letter MPCB/RONM/2312290004 dated 29/12/2023 received on 9/01/2024 as below.

Sr No	Direction Points	Status	Action Plan	Compliance Date
	Short Term (Less than 1 year)			
1	Process vents to be connected through double condenser.	Complied. - All process vents are connected to the flare. There is no emission to the atmosphere.	Nil	----
2	Process vents of condenser should be of adequate height.	Complied	Nil	----
3	Process vents of condenser should pass through absorption media like activated carbon.	Not Applicable. Process vents are connected to the flare.	Nil	----
4	Pumps shall be provided with mechanical seals to prevent leakages.	Complied. All pumps are fitted with mechanical seals.	Nil	----
5	Implementation of LDAR to control NH3 emissions.	Not Applicable. We are not using NH3 in the plant.	Nil	----
6	Removal of VOCs by air stripping before equalization tank.	1. No air stripping provision before equalization tank. However, the effluent feed tank is covered with GI sheets. 2. VOC monitoring started.	We are exploring the air stripping provision before equalization tank at suitable location.	Technical proposal and commissioning by December 2024
7	Odours wastewater stream shall be handled in closed system from the source to primary treatment stages.	All existing waste-water collection system is close system with effluent connected in the pipes.	Nil	----

Regional Officer, Navi Mumbai
Maharashtra Pollution Control Board,
Raigad Bhavan, 7th Floor,
Sector 11, C.B.D. Belapur,
Navi Mumbai 410614.

8	Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank.	We have confirmed in our monitoring that VOC level in aeration tank find low concentration and no vaporization in that area.	Nil	----
9	Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odor control system	1. All effluent collected to the aeration tank which uses the activated sludge process. 2. We have multi disk screw (MDS) system installed at ETP area. Sludge removed from MDS having very low moisture content is further dried in poly house and disposed off through the TTCWMA.	Explore odor control chemicals in the aeration tank.	Technical evaluation and implementation by June 2024.
10	Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulphides, organosulphur based compounds etc.) and ammonia	We have multi disk screw (MDS) system installed at ETP area. Sludge removed from MDS having very low moisture content is further dried in poly house and dispose of through the TTCWMA.	Nil	----
	Long Term (1 year and above)			
1	Capping of various open-air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/ media based scrubbers.	VOC monitoring started.	We are exploring technical solution for capping of open-air treatment systems (collection tanks, equalization tanks).	Technical proposal and commissioning by April 2025.

Hope, all information is in the line as per direction.

For Gramercy Trade Industries Private Limited

Ashish Nagvekar
Director (Occupier)

CC. 1. Sub-Regional Officer, Navi Mumbai -1, Raigad Bhavan, 7th Floor, CBD Belapur, Navi Mumbai – 400614

2. Joint Director (WPC), M.P.C. Board, Kalpataru Point, 2nd & 4th Floor, Sion, Mumbai. 40022

3. Legal Division, M.P.C. Board, Kalpataru Point, 2nd & 4th Floor, Sion, Mumbai. 40022

KORDE CHEMICALS PVT. LTD.

Correspondence Address: RRR House, Plot 80, Sector 23, CIDCO Industrial Area, Turbhe, Navi Mumbai - 400 705, INDIA. Tel. : +91 22 2783 3655 / 2783 1348 • Fax : +91 22 2783 4814
E-mail : kordechem@rrrlabs.com • Website : www.rrrlabs.com
CIN - U24100MH1987PTC042539 • GSTIN : 27AAACK0764C1ZX

Date: 13 June 2024

The Maharashtra Pollution Control Board
Regional Office - Navi Mumbai
Raigad Bhavan, 7th Floor,
Sector 11, CBD Belapur, Navi Mumbai 400 614
Tel: 022-27572740
Email: ronavimumbai@mpcb.gov.in
Kind Attn: Mr. Satish H Padwal, Regional Office - Navi Mumbai

Dear Sir,

Ref: Letter No. MPCB/RONM/23/2290007 dated 29.12.2023

With reference to the above direction, we hereby submit as follows:

Short Term Actions (Less than 1 year)

1. Process vents shall be connected through condenser - **Yes**
2. Process vents shall be of adequate height - **Yes**
3. Process vents shall pass through absorption media like activated carbon - **Yes**
4. Pumps shall be provided with mechanical seal to prevent leakages - **Yes**
5. LDAR to control ammonia emissions – Not applicable
6. VOCs removal by air-stripping before equalization tank - **Yes**
7. Closed system handling from the source to the primary treatment stage for odourless waste water stream. - **Yes**
8. VOCs shall be removed by air stripping and adsorption on solids in aeration tank - **Yes**
9. Aqueous activated sludge diffusion in our sludge drying tank - **Yes**
10. Regular maintenance and operation of sludge thickening agents and reduction of generation of sulphurous compounds. - **Yes**

Long Term Actions (1 year and above)

We are in the process of planning of capping of the open air treatment system and appropriate venting via scrubber.

Our Mr. Vitthal Naik and Mr. Atul Narule had met you at your office on 01.03.2024 and the various actions currently being taken in connection with the above directions were explained with photographs to your colleague. They were asked to send all the above information including the reply to your direction by email. We had therefore sent the email to your goodself on 05.03.2024 along with all relevant attachments.

Kindly acknowledge receipt of this letter.

Thanking you,
Yours faithfully,
for Korde Chemicals Pvt. Ltd.

Nagaraj Rao

Dr. Nagaraj Rao
Director

MEHK CHEMICALS PRIVATE LIMITED

Office Address : 603, Devavrata Premises Co-Op Soc. Ltd., Plot no. 83, Sector 17, Vashi, Navi Mumbai - 400705, Maharashtra, India

Factory : W-5, W-6, W-7, W-8, C-159 & C-348, TTC Industrial Area, Pawane, Navi Mumbai - 400703, Maharashtra, India

T : +91-22-2768 2497 / 2761 4487 / 2768 2496 | E : admin@mehk.in, info@mehk.in | W : www.mehk.in

CIN No. : U24200MH1989PTC050545 | GSTIN : 27AABCM0329E1ZX

Date : 17 January 2024

To

The Regional Officer
MPCB
Navi Mumbai

Ref : MPCB/RONM/2312290006 dated 29/12/2023

Sub : Direction under the provisions of the Water (Prevention & Control of Pollution) Act 1974, Air (Prevention & Control of Pollution) Act 1981 and Hazardous & other waster (Management and Trans-boundary movement) Rules 2016

Dear Sir,

This has reference to your above mentioned letter dated 29/12/2023 which we have received by email on 3 Janaury 2024. Please find below pointwise reply to short term mitigation plan for odour and air pollution industrial source in Thane Belapur Industrial Area:

1. Process vents are already connected through double condenser, main condenser is using cooling tower water and vent condener using chilled water.
2. Process vents of condener are already at an adequate height.
3. Request your guidance – on connecting using absortion media. Please also guide which absortion media are recommended.
4. All pumps are provided with mechanical seals to prevent leakages.
5. In our processes there is no NH3 Gas emission. Please let us know if LDAR is required.
6. Please suggest an approved air stripping system for removal of VOCs before equalisation tanks.
7. At present our waste water from plant flows through a gutter which is covered. We will change this to a closed ceramic pipe system at the earliest.
8. We already have aeration system in our effluent collection pit. After settling, the top layer is taken for pH neutralisation.
9. The neutral effluent is treated with polyelectrolyte and filtered through sand beds before discharge into CETP effluent collection pipeline.
10. Since, our effluent does not contain sulfurous compounds or ammonia we do not treat with lime or iron salts.

For long term systems we will take the guidence of approved experts and shall implement the same as soon as possible.

Trust you would find our reply to your satisfaction,

Thanking you,

Your Faithfully,
For **Mehk Chemicals Pvt. Ltd.,**

Rohit Kamath
Director

NOCIL LIMITED

Regd. Office : Mafatlal House, Backbay Reclamation, H.T. Parekh Marg, Churchgate, Mumbai 400 020. India T: +91 22 6636 4062 F: +91 22 6636 4060

Plant-1:C-37, TTC Industrial Area, Post Turbhe, Off Thane Belapur Road, Pawne Village Navi Mumbai - 400 705 India. T: +91 22 6673 0551 / 552 / 553 / 554 / 555 F:+91 22 2767 1865

Plant -2: Plot No. 12-A-1, GIDC, Industrial Area, Dahej, Tal. Vagra, Bharuch, Gujarat-392130 T: +91 02641-208201/227

website : www.nocil.com CIN- L99999MH1961PLC012003

ARVIND MAFATLAL GROUP
The ethics of excellence

To,

Date: 22.01.2024

The Regional Officer, Navi Mumbai,
Maharastra Pollution Control Board,
Raigad Bhavan, 7th floor,
Sctor-11, C.B.D. Belapur,
Navi Mumbai-400614

Kind Attn.: Mr. Satish Padwalsir.

Dear Sir,

Sub : Directions under the provisions of the Water(Prevention & Control of Pollution) Act 1974, Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & other waste (Management and Trans-boundary Movement) Rules,206.

Ref: Your letter MPCB/RONM/240/040005 dated 04/01/2024

With reference to captioned subject, we would like to bring to your kind notice our poin wise submissions as below.

1. Sir, We do not have any process vent directly open to the air. All vents are connected through well-designed scrubbers/ bag filters to arrest contaminants, if any, to the standards prescribed by MPCB. We regularly monitor these vents through NABL approved laboratories and are always below the prescribed limits. Results of monitoring carried out by MPCB are well within the prescribed limits.
2. All vents are placed on the approved height to have effective dispersion and clean atmosphere.
3. All process vents are connected through well-designed scrubbers containing absorption/scrubbing media/ bag filters to arrest contaminants if any, to the standards prescribed by MPCB.
4. We changed all process pumps with gland packing to mechanical seals in the manufacturing area.
5. LDAR, Leak Detection And Response system is already in place at our Navi Mumbai plant. We have already installed detectors for Chlorine, Ammonia, Hydrogen etc.in the plant and are in operation. Regular preventive maintenance and calibration are being done for their effective functioning. These detectors can communicate with the control room about emergency leakages in the plant to have an immediate response. Our control rooms are manned round the clock with chemical engineers and experienced plant operators. In plant air monitoring for VOCs is being carried out under predefined frequency with GASTEC detector tubes and exists a procedure to raise an alarm during deviations. Records are maintained in specified format and are being subjected to various inspections and audits.
6. VOCs are removed through skimmer pits at the plant end.
7. Wastewater streams are collected through closed transfers system into the ET plant.
8. Sir, we have an aerobic activated sludge treatment process and aeration tank is operated round the clock for treatment of wastewater without any odor issues.
10. We regularly carry out O&M of our decanter centrifuge to have efficient thickening.ir spargers.
11. We shall take all necessary measures to further control the existing systems towards improvement of environment.

NOCIL LTD. is the largest manufacturer of Rubber Chemicals in the Country and our operations at the TTC Industrial Area, Off Thane Belapur Road site are being carried out for last 37 years and is a pioneer in the field of Health, Safety and Environment (HSE) on this industrial belt. NOCIL has immensely contributed, individually or through MARG (Mutual Aid Response Group), in this field to the benefit of other members of the industry in improving the overall HSE standards of the industrial belt.

NOCIL is certified for ISO – 9000 (Quality), ISO – 14000 (Environment), OHSA – 18000 (Occupational Health) and TS – 16949 (Quality – Automotive Supply Chain) standards, under which very stringent audits are carried out regularly. Nearly 50% of our products are exported to major tyre manufacturers all around the world, who conduct their own audits for our operations and other systems. Maintaining very high Health Safety & Environment standards is the minimum and basic requirement of our business and organizational philosophy.

Sir, in light of above it is evident that the requisite systems are already in operation and in line with the requirement. We herewith request your guidance, if any in this matter.

Thanking you,
For M/s. NOCIL Ltd.,

NOCIL LIMITED NAVI MUMBAI

S.R.Hule
Dy. Gen. Manager Corporate HSE.

N.S.CHEMICALS

CHEMICALS

ISO 9001:2015 CERTIFIED

Office :601-611, DEVAVRATA , SECTOR 17, VASHI, NAVI MUMBAI-400 703, M.S. [INDIA]
TEL. +91 [022] 27895695/96 FAX +91 [022] 27895700
E.mail : info@nschemicals.in Web. www.nschemicals.in

DATE :- 12/02/2024.

To,

The Regional Officer.
Maharashtra Pollution Control Board, Navi Mumbai,
CBD, Belapur,
Navi Mumbai-400614.

Sub.:-Direction under the provisions of the Water (Preventions & Control of Pollution) Act,1974, Air (Prevention& Control of Pollution) Act,1981 and Hazardous and other waste (management and Trans boundary movement) Rules 2016.

Ref.:- Your letter dated 29/12/2023.

Respected sir,

Received your letter dtd.29/12/2023 through email and our reply for the same is as under.

1. Processventstobe connectedthroughdouble condenser :- **Already installed.**
2. Processventsofcondensershouldbeofadequateheight. :-**Yes**
3. Processventsofcondensershouldpassthroughabsorptionmedialikeactivatedcarbon.:- N.A.
4. Pumpsshallbeprovidedwithmechanicalsealstopreventleakages.:-**N.A.**
5. ImplementationofLDARtocontrolNH3emissions. :-**We don't have emission of NH3.**
6. RemovalofVOCsbyairstrippingbeforeequalizationtank. :-**No solvent goes to ETP during the process. We recover it by distillation and reuse in process again.**
7. Odours wastewater stream shall be handled in closed system from the source to primary treatment stages.:-**Yes , we have closed system.**
8. RemovalofVOCsbycompetingmechanismsofairstrippingandadsorptiononsolidsinaeration tank.:-**N.A.**
9. Aqueousactivatedsludge diffusion,by sparging thecollectedodoremissions intoaerationtanks ofCETP,a typicalliquid-basedodor*control* system.:-**N.A.**

NGT
V.M.
fo
04/03/2024

Sr 1

10. Regular0&Mofsludgethickeners i.e.treatingthesludge with limeorironsaltstoencourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulphides, organosulphurbasedcompoundsetc)andammonia.:-**We are SSI unit with limited financial sources. We are the member of CETP and Trans Thane Creek Salid Waste Management Association (TTCWA) . We discharge treated effluent through MIDC drainage line connected to CETP for further disposal. Also we sentHazardous liquid and solid waste to TTCWA for further disposal.**

We hope you will find above clarification inorder.

Thanking you,

Yours faithfully,
For N.S.CHEMICALS,

PROPRIETOR

PARAS ORGANICS PVT. LTD.

Regd. Office & Factory : D-119, TTC Ind. Area, MIDC, Shiravane, P. O. Nerul, Navi Mumbai - 400 706. • Tel.: +91 9372775279
E-mail : info@parasorganics.com • Website : www.parasorganics.in

Date : 11/03/2024

To,

The Regional Officer,

Maharashtra Pollution Control Board,

7th Floor, Raigad Bhavan, CBD Belapur ,

Navi Mumbai.

Subject : Response to Directions Under the provision of the Water (Prevention & Control of Pollution)Act 1974,Air ((Prevention & Control of Pollution)Act1981 and Hazardous & other waste(Management and Transboundary Movement)Rules 2016.

Ref ; MPCB/RONM/2402230004 dtd 23/02/2024

Respected Sir,

With Reference to above subject matter our response to the directions is as under,

Considering the measures proposed by Regional Director, Central Pollution Control Board, Pune and curb the pollution issues in the surrounding area in exercise of the power conferred upon you by the board under section Water (Prevention & Control of Pollution) Act 1974 and u/s 31A of Air ((Prevention & Control of Pollution) Act1981 we are hereby undertake to implement following which are required to do for us.

Short Term (Less Than 1 year)

1. Process vents to be connected through double condenser.
   We have connected the process vents to vacuum pump and scrubbers. The material recovered from scrubber is recycled in process.

2. Process Vents of condenser should be adequate.
   Adequate height is provided at various points.

3. Process vents of condenser should pass through absorption media like activated carbon.
   Not applicable as we are reusing the absorption water.

4. Pump shall be provided with mechanical seals to prevent leakages.
   Mechanical seals are provided to all pump.

5. Implementation of LDAR to control NH3 emissions.
   Process does not have NH3 emissions.

6. Removal of VOC by air stripping before equalization tank.

   We have already provided collection and equalization tank with air grids.

7. Odours waste water stream shall be handled in closed system from the source to primary treatment stages.

   There is no specific odor in our waste system, and we have provided closed system.

8. Removal VOCs by competing mechanism of air stripping and adsorption on solids in aeration tank.
   The process have very less solvent for which we have provided diffuser aeration system (MBBR)

9. Aqueous activated sludge diffusion by sparging the collected odour emission into aeration tanks of CETP a typical liquid based odor control system.
   As mentioned in point no. 7, there is no odour emission and so the control system is not applicable.

10. Regular O & M of sludge i.e. treating sludge with lime or iron salts encourage thickening and reduce degassing of sulfurous componds (H2S, organics, sulphides, organosulphur based compounds, etc) and ammonia.
    The process and raw materials used does not contain any sulfurous compounds and ammonia.

We will complete the short term jobs within period of 3 months and long term jobs which are applicable for us within period of 6 months

This is for your kind information.

Thanking You,
Yours Truly,

For Paras organics Pvt Ltd

Mr. Raju Apte

PARAS ORGANICS PVT. LTD. NAVI MUMBAI-400705

Esters and Solvents LLP

Regd.Office : W-180, MIDC T.T.C. Industrial Area, Pawane, Thane-Belapur Road,
Navi Mumbai, 400710, Maharashtra, India.
Telephone : +91 7045660000 E-mail: info@esters-solvents.com • LLP Identity Number - AAA-6643

01/03/2024

Regional Office, Navi Mumbai
240304RSC0084
M

To,
Regional Officer
Maharashtra Pollution Control Board
7th Floor, Raigad Bhavan,
CBD Belapur, Navi Mumbai.

Kind Attn.: Shri. Satish Padwal.

Sub- Reply to Directions received under the Provision of Water Act.
Ref- MPCB' s Letter MPCB/RONM/ 2312290009 dated 29/12/2023.

Dear Sir,
Referring to the above mentioned directions, we are submitting the point wise reply as follows;

Short Term (Less than 1 year)

1) Process vents to be connected through double condenser.
➡ Process vents are connected through double condensers. Attaching the photo herewith for your records.

2) Process vents of condensers' should be of adequate height.
➡ Vents are well above the roofs.

3) Process vents of condenser should pass through absorption media like activated carbon.
➡ Vent is connected to directly to Caustic Scrubber having no obnoxious odour at the outlet.

4) Pumps shall be provided with mechanical seals to prevent leakages.
➡ We have SS centrifugal pump with mechanical seal. Attaching the photo herewith for your records.

5) Implementation of LDAR to control NH3 emissions.
➡ We are not having any NH_3 usages in our manufacturing process.

6) Removal of VOCs by air stripping before equalization tank
➡ We will implement the same at the earliest.

7) Odours waste water stream shall be handled in closed system from the source of primary treatment stages
➡ Waste water streams are handled in closed system. Attaching the photo for your records.

V.M. RO
(3)
04/03/2024

(1) Double condenser vent (1)

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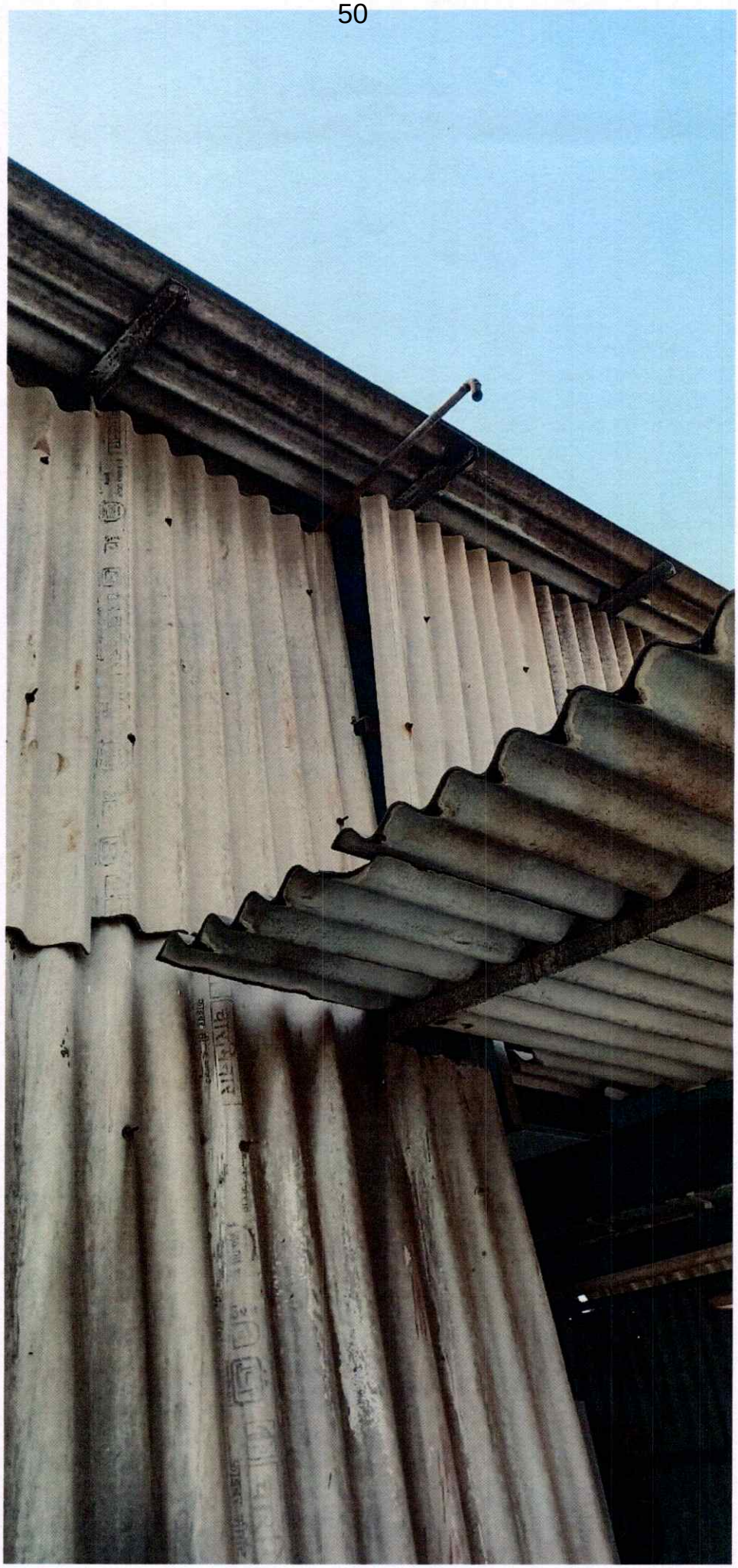
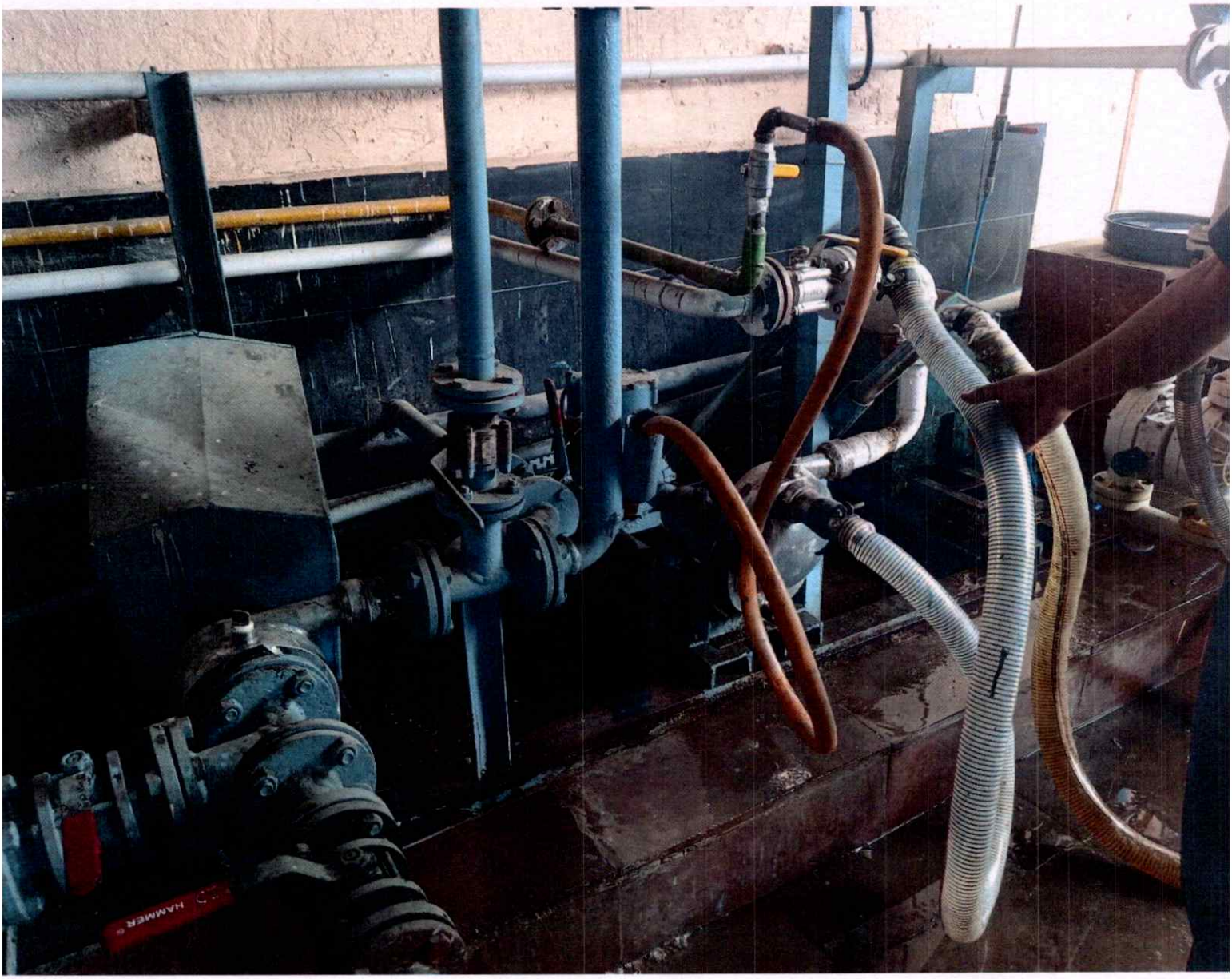


(1) Double condensor vent (2)

262

(3) Vent Scrubber



(4) Pumps with mechanical seal arrangem

MOC = SS

(7) ETP Eq. tank -1

265 (7) ETP Eq. tank-2 54

Piramal Pharma Limited

To,

Date : 14/02/2024

Regional Officer,
Maharashtra Pollution Control Board,
Raigad Bhavan, CBD Belapur,
Navi Mumbai.

Sub.: Reply to your directions dated 29/12/23

Ref.: Directions No. MPCB/ROMM/2312290003 under Provisions of water(Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act 1981 and Hazardous & Other waste (Management and Trans-boundary Movement) Rules 2018 dated 29/12/2023

Dear Sir,

With reference to above, we have seen above directions on ecmpcb webportal on 13/02/24. We would like to mention that We have not received any mail communication from the Board in this regard. We would like to furnish status of compliance as under

Short Term(less than 1 year)

Sr. No.	Direction	Status of Compliance
1	Process vents to be connected through double condenser	• Peptide manufacturing involves synthesis of small quantity of chemicals processed in a Laboratory fume hoods. Fume Hood vents are connected to process scrubbers. • We have already provided double condensers to process where oxidation reaction takes place. Hence, complied with. • Periodical Monitoring of process scrubbers vents and ambient air quality monitoring by MOEF approved Lab. is carried out and parameters are within the prescribed standards. • Attached Reports as Annexure 1
2	Process vents of condenser should be of adequate height.	• Peptide manufacturing involves synthesis of small quantity of chemicals processed in a Laboratory fume hoods. Fume Hood vents are connected to process scrubbers and vents are provided with adequate height as per standard requirements with sample ports.
3	Process vents of condenser should pass through absorption media like activated carbon.	• Peptide manufacturing involves synthesis of small quantity of chemicals processed in a Laboratory fume hoods. Fume Hood vents are connected to process scrubbers.

Piramal Pharma Limited

		• We have already provided double condensers to process where oxidation reaction takes place. Hence, complied with. • Periodical Monitoring of process scrubbers vents and ambient air quality monitoring by MOEF approved Lab. is carried out and parameters are within the prescribed standards. • Attached Reports as Annexure 1
4	Pumps shall be provided with mechanical seals to prevent leakages	• Industry has provided Air Operated Double Diaphragm (AODD) pumps for chemical transfer in process.
5	Implementation of LDAR to control NH3 emissions.	• Fume Hood vents are connected to process scrubbers. Process scrubber vents are monitored periodically and complying with. • We will explore LDAR • Analysis reports of process scrubber is attached
6	Removal of VOCs by air stripping before equalization tank	• Industry has segregated effluent streams at source. • solvent stream is collected in closed condition and send to authorized parties. • Waste water will not have any solvent, hence stripping is not technically feasible. • VOC analysis conducted at process scrubber vent report attached.
7	Odors wastewater stream shall be handled in closed system from the source to primary treatment stages.	• Industry is not handling chemical which is Odorous, processes handled in fume hood connected to scrubbers. • Waste water generated is handled in closed system upto ETP.
8	Removal of VOCs by competing mechanisms of air stripping and adsorption on solids in aeration tank	• Waste water will not have any solvent hence stripping is not technically feasible. • VOC analysis conducted at process scrubber vent report attached.
9	Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid – based odor control system	• Industry is not handling chemical which is Odorous. Waste water will not have any solvent hence stripping is not technically feasible

Piramal Pharma Limited

10	Regular O & M of sludge thickners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulphides, organosulphur based compounds etc) and ammonia.	• We do not have any thickener in our system. Sludge generated from clarifiers are taken to filter press, dried cake disposed to TSDF
	Long Term(1 year and above)	
1	Capping of various open air treatment systems(collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers	• Since, our process vents are connected to scrubbers and condensers, we do not handle odors chemicals and we have segregated solvents streams from waste water, Possibility of emissions from equalization tanks and other tanks is very remote and technically not required to capping of treatment systems. However, we will evaluate this requirement.

In view of above, we are complying with above directions and you are requested not to take any action. We assure you our cooperation and compliance all the time.

Thanking You

Yours sincerely

Authorised Signatory

Piramal Pharma Limited

Sadekar Enviro Engineers Private Limited

Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
✆ : (91-22) 2583 3321 / 2583 3322 / 2583 3323 / 2583 3324 • E-mail : prs@sadekarenviro.com / psadekar5@gmail.com

ANALYSIS REPORT FOR PROCESS STACK EMISSION

Report No	SEET/AA/10/23/359	Date	23/10/2023
Name of Client	M/s Piramal Pharma Ltd.,		
Address of Client	Plot No.C-43,M.I.D.C, Off T.T.C Industrial Area, Turbhe, Dist : Thane – 400613		
Date of sampling	16/10/2023		
Time of sampling	Day Time		

DETAILS OF STACK

Stack No.	S-6
Stack attached to	Ammonia Scrubber
Shape	Round
Stack Temperature	38^0C

POLLUTION PARAMETERS

PARAMETERS	RESULTS	UNIT	NORM
NH_3	19.4	ppm	50

NOTE: 1) The above results relate only to the condition prevailing at the time of sampling
2) The above results relate only to the item tested.

Authorized by

Sadekar Enviro Engineers Pvt. Ltd.

Sadekar Enviro Engineers Private Limited

Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
✆ : (91-22) 2583 3321 / 2583 3322 / 2583 3323 / 2583 3324 • E-mail : prs@sadekarenviro.com / psadekar5@gmail.com

ANALYSIS REPORT FOR PROCESS STACK EMISSION

Report No	SEET/AA/10/23/361	Date	23/10/2023
Name of Client	M/s Piramal Pharma Ltd.,		
Address of Client	Plot No.C-43,M.I.D.C, Off T.T.C Industrial Area, Turbhe, Dist : Thane – 400613		
Date of sampling	16/10/2023		
Time of sampling	Day Time		

DETAILS OF STACK

Stack No.	S-5
Stack attached to	Solvent Scrubber No. 1
Shape	Round
Stack Temperature	39^{0}C

POLLUTION PARAMETERS

PARAMETERS	RESULTS	UNIT	NORM
Acid Mist	13.7	mg/Nm^3	35.00

NOTE: 1) The above results relate only to the condition prevailing at the time of sampling
2) The above results relate only to the item tested.

Authorized by

Sadekar Enviro Engineers Pvt. Ltd.

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Sadekar Enviro Engineers Pvt. Ltd.

Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
✆ : (91-22) 2583 3321 / 2583 3322 / 2583 3323 / 2583 3324 • E-mail : prs@sadekarenviro.com / psadekar5@gmail.com

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SAVE LIFE

Gazetted by Ministry of Environment, Forest Govt. Of INDIA. S. O. 857 (E), Valid upto 25.02.2023 * QCI-NABET Accredited EIA Consultancy

ANALYSIS REPORT FOR PROCESS STACK EMISSION

Report No	SEET/AA/07/22/235	Date	30/07/2022
Name of Client	M/s Hemmo Pharmaceuticals Pvt.Ltd.,		
Address of Client	Plot No.C-43,M.I.D.C, Off T.T.C Industrial Area, Turbhe, Dist : Thane – 400613		
Date of sampling	23/07/2022		
Time of sampling	Day Time		

DETAILS OF STACK

Stack No.	IV
Stack attached to	Solvent Scrubber No. 1
Shape	Round
Stack Temperature	35^0C

POLLUTION PARAMETERS

PARAMETERS	RESULTS	UNIT	NORM
Total VOC	0.75	mg/m^3	5.0

NOTE: 1) The above results relate only to the condition prevailing at the time of sampling
2) The above results relate only to the item tested.

Authorized by

BRANCH OFF. : 310, Dempo Towers, EDC Patto, Panaji-403 001. Goa State, India ✆ : (0832) 2437048 / 2437164
E-mail : sadekarenviro@rediffmail.com • Website : www.sadekarenviro.com

LABORATORY : B-306/307, Plot No. 61, Patel Estate, Reis Magos, Verem, Alto, Old Betim Road, Bardez, Porvorim, Panaji-Goa-403 101.
Goa State, India. ✆ : (0832) 2411322 / 23 • E-mail : starlabgoa@rediffmail.com • CIN No. U45209MH1998PTC-116379

Sadekar Enviro Engineers Private Limited

Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
✆ : (91-22) 2583 3321 / 2583 3322 / 2583 3323 / 2583 3324 • E-mail : prs@sadekarenviro.com / psadekar5@gmail.com

ANALYSIS REPORT FOR AMBIENT AIR SURVEILLANCE

Report No	SEET/AA/10/23/362	Date	23/10/2023
Name Of Client	M/s Piramal Pharma Ltd.,		
Address of Client	Plot No.C-43,M.I.D.C,Off T.T.C Industrial Area, Turbhe, Dist : Thane – 400613		
Date of sampling	16/10/2023		

AMBIENT AIR STATION

Location of H.V.S.	Near Main Gate
Lateral Distance	5.0 Meters From Main Gate
Receptor Distance	1.5 Meters From Ground Level
Ambient Temperature	33.8^{0}C
Humidity	70 %

POLLUTIONAL PARAMETERS

Parameters	Result	Units	NAAQS Limits	Method
$PM_{2.5}$	46.00	µg/m^3	60.00	Gravimetric
PM_{10}	71.00	µg/m^3	100.00	Gravimetric
SO_2	43.00	µg/m^3	80.00	Improved West &Gaeke
NO_X	29.00	µg/m^3	80.00	Modified Jacob &Hochheiser
Ozone (O_3) 8 hours	B.D.L	µg/m^3	100.00	UV Photometric
Lead (Pb)	B.D.L	µg/m^3	1.00	AAS
Carbon Monoxide(Co) Hrs	0.93	mg/m^3	2.00	Metter
Ammonia (NH_3)	46.7	µg/m^3	400.00	UV Photometric
Benzene (C_6H_6)	B.D.L	µg/m^3	5.00	GC
Benzo Pyrene (BaP)	B.D.L	ng/m^3	1.00	GC
Arsenic (As)	B.D.L	ng/m^3	6.00	AAS
Nickel (Ni)	B.D.L	ng/m^3	20.00	AAS

NOTE: 1) The above results relate only to the condition prevailing at the time of sampling.
2) The above results relate only to the item tested.
3) PM_{10}-Particulate Matter of size <10 µm
4) $PM_{2.5}$ - Particulate Matter of size <2.5 µm
5) NAAQS-National Ambient Air Quality Standards

Authorized by

Sadekar Enviro Engineers Pvt. Ltd.

PRECISE
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Dt.: **31.05.2024**

To,

Regional Officer,

Maharashtra Pollution Control Board

Navi Mumbai I

Sub: Reply to Notice MPCB/RONM/2312290002 Dt.29.12.2023 and MPCB/RONM/240246-FTS-0279

Dear Sir,

As informed earlier in our reply dated 06.05.2024 that the plot number mentioned in your letter is C-445 instead of C-384 in the letter dated 29.12.2023 and 26.04.2024. Hereby we reply as under for the Directions No. MPCB/RONM/2312290002 considering Plot No. C-384.

1. Process vents to be connected through double condenser.
   Reply - Process vents are connected to the double condenser with brine circulation
2. Process vents of condenser should be of adequate height.
   Reply - Process vents of condenser are in adequate height.
3. Process vents of condenser should pass through absorption media like activated carbon.
   Reply - We will be Provide activated carbon media for process vents of condenser within a year.
4. Pumps shall be provided with mechanical seals to prevent leakages
   Reply - We have provided pumps with mechanical seals.
5. Implementation of LDAR to control NH3 emissions.
   Reply - We do not use ammonia in our process. In future if required we will implement.
6. Removal of VOCs by air stripping before equalisation tank.
   Reply - We already provided air striping for removal of VOCs.
7. Odours waste water stream shall be handled in close systems from the source to primary treatment stages.
   Reply - We handle Odours waste water stream in close systems from the source to primary treatment stages.

31/5/24
प्रादेशिक कार्यालय, नवी मुंबई
महाराष्ट्र प्रदुषण नियंत्रण मंडळ,
रायगड भवन, ७ वा माळा, सेक्टर-११,
पी.बी.डी. बेलापूर, नवी मुंबई - ४००६१४

Precise Biopharma Pvt. Ltd.
C-384, T.T.C. Industrial Area, M.I.D.C. Pawne, Navi Mumbai - 400 703, India
+91-22-6231 8600 CIN No.: U24230MH2005PTC152453
www.precisegroup.co.in

PRECISE
Technologies... Innovations...

8. Removal of VOCs by competing mechanism of air stripping and adsorption on solids in aeration tank.
   Reply - We have standard operating procedure for primary treatment in which Alum and polyelectrolyte anionic solutions.
9. Aqueous activated sludge by spurging the collected odour emissions into aeration tanks of CETP, a typical liquid based odour control system.
   Reply - we have already provided primary, secondary and tertiary treatment.
10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulphurous compounds (H2S, organic sulphides, organic sulphur based compounds etc.) and ammonia.
    Reply - We already treat effluent using alum and poly treatment to reduce the degassing of sulphurous compounds.
11. Capping of various open air treatment systems (collection tanks, equalization tanks) and venting with appropriate VOC traps/media based scrubbers.
    Reply - We will fulfil as soon as possible.

We assure that the information provided is correct.

For Precise Biopharma Pvt. Ltd.

Authorized Signatory

Precise Biopharma Pvt. Ltd.
C-384, T.T.C. Industrial Area, M.I.D.C. Pawne, Navi Mumbai - 400 703, India
+91-22-6231 8600 CIN No.: U24230MH2005PTC152453
www.precisegroup.co.in

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PRECISE CHEMIPHARMA PVT. LTD.

D-90/3, T.T.C. Industrial Area, M.I.D.C., Turbhe, Navi Mumbai - 400 705, India.
Tel. : +91-22-2761 7550, Telefax : +91-22-2761 7512

Dt.: 15.02.2024

To,

Regional Officer,

Maharashtra Pollution Control Board

Navi Mumbai I

Sub: Reply to Notice MPCB/RONM/2401120004 Dt.12.01.2024

Dear Sir,

Received your letter as mentioned above on 13.02.2024.

1. Process vents to be connected through double condenser.

   Reply - Process vents are connected to the double condenser with brine circulation

2. Process vents of condenser should be of adequate height.

   Reply - Process vents of condenser are in adequate height.

3. Process vents of condenser should pass through absorption media like activated carbon.

   Reply - We will be Provide activated carbon media for process vents of condenser within a year.

4. Pumps shall be provided with mechanical seals to prevent leakages

   Reply - We have provided pumps with mechanical seals.

Regional Officer
Maharashtra Pollution Control Board
Navi Mumbai

CIN:U24110MH1993PTC075033

PRECISE CHEMIPHARMA PVT. LTD.

D-90/3, T.T.C. Industrial Area, M.I.D.C., Turbhe, Navi Mumbai - 400 705, India.
Tel. : +91-22-2761 7550, Telefax : +91-22-2761 7512

5. Implementation of LDAR to control NH3 emissions.

   Reply - We does not use ammonia in our process. In future if required we will implement.

6. Removal of VOCs by air stripping before equalisation tank.
   Reply - We already provided air striping for removal of VOCs.

7. Odours waste water stream shall be handled in close systems from the source to primary treatment stages.

   Reply - We handle Odours waste water stream in close systems from the source to primary treatment stages.

8. Removal of VOCs by competing mechanism of air stripping and adsorption on solids in aeration tank.

   Reply - We have standard operating procedure for primary treatment in which Alum and polyelectrolyte anionic solutions.

9. Aqueous activated sludge by spurging the collected odour emissions into aeration tanks of CETP, a typical liquid based odour control system.
   Reply - we have already provided primary, secondary and tertiary treatment.

10. Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulphurous compounds (H2S, organic sulphides, organic sulphur based compounds etc.) and ammonia.
    Reply - We already treated effluent using alum and poly treatment to reduce the degassing of sulphurous compounds.

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PRECISE CHEMIPHARMA PVT. LTD.

D-90/3, T.T.C. Industrial Area, M.I.D.C., Turbhe, Navi Mumbai - 400 705, India.
Tel. : +91-22-2761 7550, Telefax : +91-22-2761 7512

11. Capping of various open air treatment systems (collection tanks, equilization tanks) and venting with appropriate VOC traps/media based scrubbers.

Reply - We will fulfil as soon as possible

We assure that the information provided is correct.

For Precise Chemipharma Pvt. Ltd.

Authorized Signatory

o/c

RPG LIFE SCIENCES LIMITED
25, MIDC Land, Thane-Belapur Road,
Navi Mumbai, Maharashtra - 400 703, India.
Tel: +91-22-27671441/1444/2645
Fax: +91-22-27672646

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RPG LIFE SCIENCES
An RPG Company

09th January 2024

To,
The Regional Officer
Maharashtra Pollution Control Board
Raigad Bhavan, 7th floor, C.B.D. Belapur,
Navi Mumbai – 409 614.

Sub: **Your letter No. MPCB/RONM/2312290010 dated 29/12/2023, received by Us through email on 03/01/2024**

Ref: **1. Consent to operate granted to your unit by MPC board.**
2. Hon'ble, NGT, WB, Pune in respect of
3. CPCB mitigation plan for odour and air pollution industries source in this area.
4. Legal Action Proposed vide no. MPCB-LEGAL-ACTIONS-271223008

Dear Sir,

We are in receipt of a letter from your good offices dated 29/12/2023. which has been received by us on portal on 29/12/2023 and your email dated 03/01/2024, Ongoing through the contents of the letter we are to submit to you for your kind consideration as follows.

That RPG Life Sciences Ltd. is always committed to comply with requirements of all statutory authorities and contribute to the growth of the nation with responsibility.

S. N.	Personal Direction by MPCB	RPGLS Comments
	Short Term (Less than 1 year)	
1	Process vents to be connected through double condenser	All Process vents are connected to either single or double condenser. All condensers have cooling water, chilling & brine water connection. All condensers' vents are connected to Scrubber System which contains Sodium Hydroxide (NaOH) absorption media.
2	Process vents of condenser should be of adequate height.	All Process vents have adequate height and the same process vents of condensers are connected to scrubber System which contains NaOH media.

04/01/2024
Regional Officer Navi Mumbai
Maharashtra Pollution Control Board,
Raigad Bhavan, 7th Floor,
Sector 11, C.B.D. Belapur,
Navi Mumbai 410614

3	Process vents of condenser should pass through absorption media like activated carbon.	All condensers' vents are connected to Scrubber System which contains NaOH media.
4	Pumps shall be provided with mechanical seals to prevent leakages.	Complied
5	Implementation of LDAR to control NH3 emissions.	There is no generation of NH3 in process. NH3 handled in closed system. NH3 usage is very less & used for neutralizing the acidic reaction in process. We are procuring NH3 in small intact containers and there is no storage tank for NH3 storage.
6	Removal of VOCs by air stripping before equalization tank.	Complied
7	Odours wastewater stream shall be handled in closed system from the source to primary treatment stages.	Odour wastewater stream handled in closed system from the generation source to primary treatment stage.
8	Removal of VOCs by competing mechanism of air stripping and adsorption on solids in aeration tank.	Yes. We provided air membrane diffusers in Aeration tanks for removal of VOCs. We will review the feasibility of adsorption on solids in aeration tank.
9	Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tanks of CETP, a typical liquid-based odour control system.	We always maintained healthy activated sludge for better biodegradation and avoid odour from aeration tank.
	Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds {H2S, organic sulphides organosulphur based compounds etc.} and ammonia.	Instead of sludge thickeners we used Plate Filter Press to be thickening the semi solid sludge (liquid) and reduce the degassing of sulfurous compounds {H2S, organic sulphides organ sulphur-based compounds etc.} and ammonia. Further we dry wet cake of filter press on SDB (Sludge Drying Bed) and ensured that there is no odour to sludge while on disposal.

RPG LIFE SCIENCES LIMITED
25, MIDC Land, Thane-Belapur Road,
Navi Mumbai, Maharashtra - 400 703, India.
Tel: +91-22-27671441/1444/2645
Fax: +91-22-27672646

RPG LIFE SCIENCES

	Long term (1 year and above)	
	Capping of various open-air treatment systems (Collection tanks, Equalization tanks) and venting with appropriate VOC traps/Media based scrubbers.	Agreed. We will review the feasibility of capping of open-air treatment system in existing ETP and proposed new ETP System. Based on feasibility shall be arranged capping accordingly.

We are assuring you we will be complying 100% statutory requirements and abiding with all environmental laws and committed to maintain clean and green environment.

This is for your information & record.
Thank you for your support and cooperation time to time.

Thanking you
Yours Truly

RPG LIFE SCIENCES LTD. EHS DEPT.

09/01/2024

For RPG LIFE SCIENCES LIMITED
(ABHIJIT RAMESH PATIL)

ACHARYA GROUP
The Chemistry Specialists

CIN : U24119MH1990PTC058820

SHIRDI CHEMICALS PVT. LTD.

Factory : C-118, T.T.C. M.I.D.C., Pawne, Navi Mumbai - 400 703. Ph.: +91-22-27610211
Admin Office : W-256-A, MIDC Phase II, Shivaji Udyog Nagar, Dombivli (East)–421 204. Dist. Thane, Maharashtra INDIA.
Tel.: +91-251-2873084, 2870991, 8291937381, 8291937382•E.mail: contact@acharyagroup.com•www.acharyagroup.com

Regional Office Navi Mumbai
FTS No 24022088096

Date: - 19/2/2024

To,

Regional Officer
Maharashtra Pollution Control Board,
Raigad Bhavan,
CBD Belapur,Navi Mumbai

Sub: - MPCB DIRECTIONS COMPLIANCE

Dear Sir,

As your letter No-MPCB/RONM/2402010001 DATED 1/02/2024 .We are submitting following details w.r.t the given directions.

Short term -Implementation in less than one year

1) Process vents to be connected through double condenser.

> Wherever there is a possibility of vapours escaping, we have provided double condensers.
e.g. GK-05 has 2 condensers and column height is 3m. Please find attached photo
> Distillation is carried out only in reactors with long columns and double condensers e.g. SK01 where column height is 14m.

2) Process vents of condenser should be of adequate height.

> All process vents are connected to the scrubber.

3) Process vents of condenser should pass through absorption media like activated charcoal .

Process vents are connected to adequate scrubber when vent gases are passed through a media with concurrent mechanism .

4) Pumps shall be provided with mechanical seals to prevent leakage.

All the process chemical pumps have mechanical seal.

5 Implementation of LDAR to control NH_3 emission .

We are neither using Ammonia as raw material, nor there is a possibility of ammonia emitting out from any of our process. However, if at all there is a possibility of using ammonia in the future we will implement the LDAR for controlling NH_3 leak.

6) Removal of VOCs by air stripping before equalization tank.

We have the distillation unit for treating High COD effluent stream. This stream primarily contains VOCs which gets stripped out during distillation.

NCF
8.5.90
23/02/24

Registered Office: Sai Jyot, Office No. 105, 1st Floor, Neepa CHS, Junction of S.N Road & S.L Road, Mulund (West), Mumbai - 400080. Maharashtra INDIA.
Ph. +91-22-25900658 / 25901958

7) Odours waste water stream shall be handled in closed system from the source to primary stages.
The waste water that we handle generally doesn't have odour, however the channels handling the waste water from source to waste water treatment system is handled in a closed system.

8) Removal of VOCs by competing mechanism of air stripping and adsorption on solid in aerator tank.
Removal of VOCs is either through distillation mechanism or through scrubbing mechanism where some scrubbed gases will form salts.

9) Aqueous activated sludge diffusion by spraying the collected odour emission into aeration tanks of CETP, a typical liquid-based odour control system.

The only possible sources of odour is through process vents which is treated in either High COD distillation unit or in scrubbing systems.

10) Regular O&M of sludge thickener i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulphurous compound (H2S,Organic Sulphides, Organosulpher compounds etc.) and ammonia.
We neither use any sulphurous compound (H2S,Organic Sulphides, Organosulpher compounds etc.), nor are we using ammonia in any of processes.

Long term - Implementation in more than one year

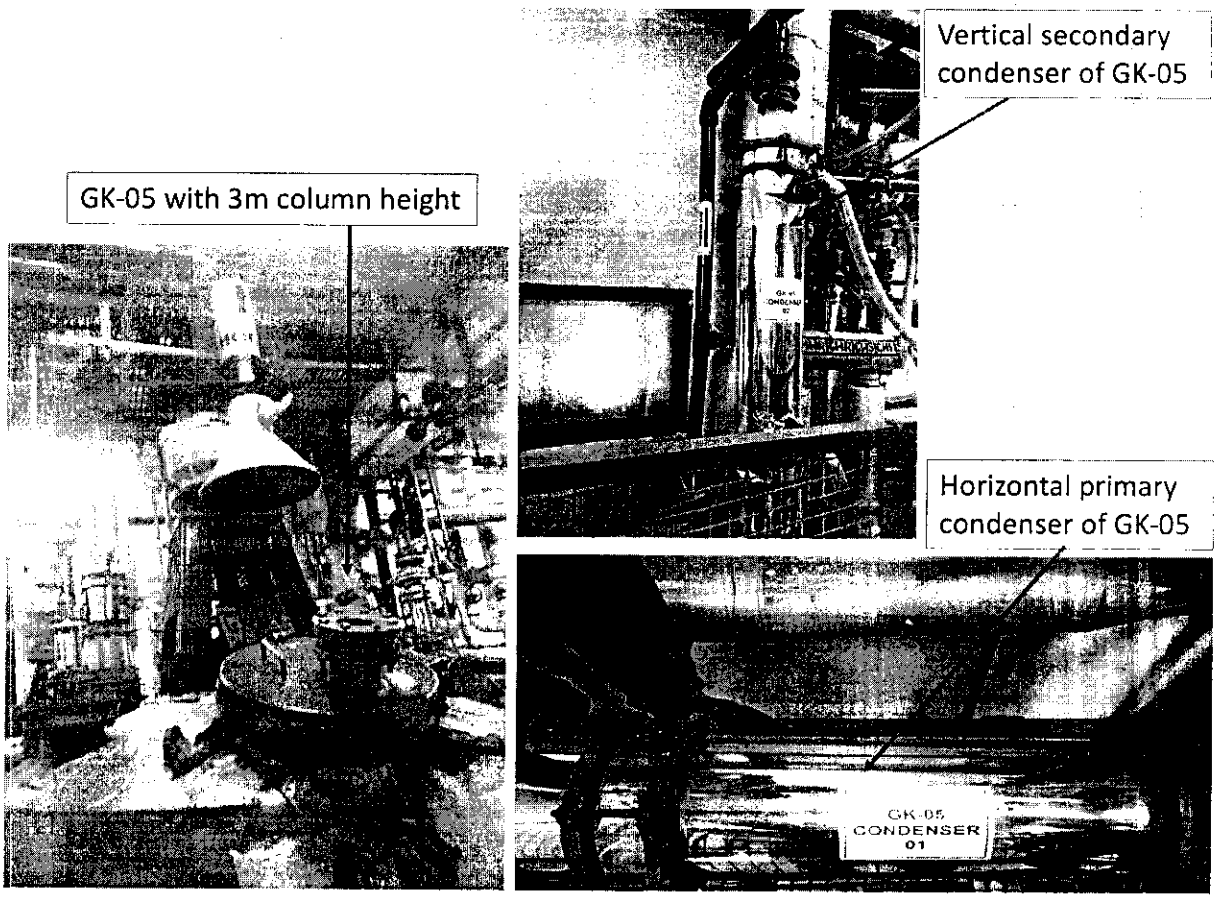
Capping of various open-air treatment systems (collection tank ,equalization tank)and venting with appropriate VOC traps/Media based scrubbers.

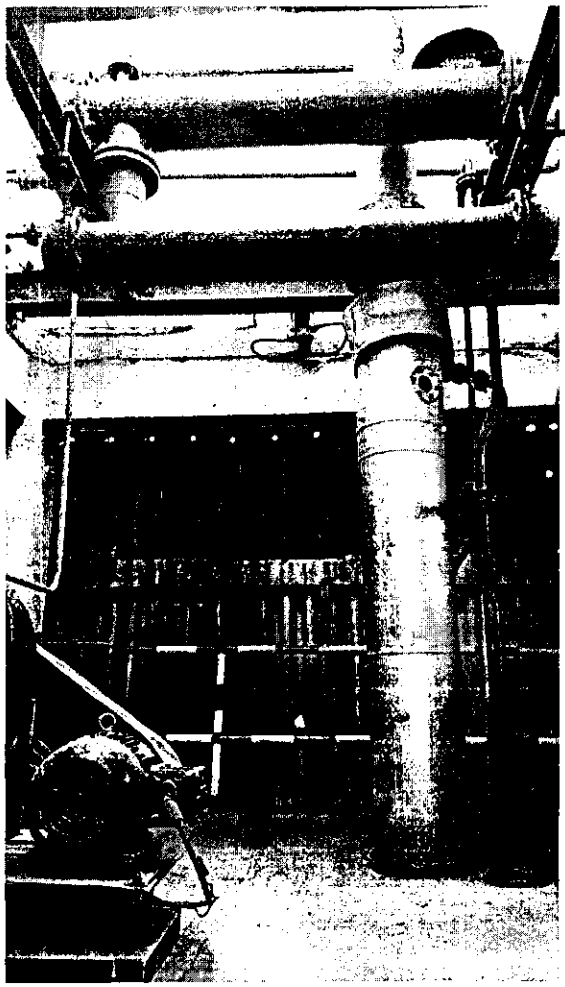
Our VOCs get treated even before it enters equalization tank, however, we will evaluate our processes and will use an appropriate technology to mitigate such issues if any.

Thanking you,
Yours faithfully,
For Shirdi Chemicals Ltd.

(Authorized Signatory)

SHIRDI CHEMICALS PVT. LTD. C-118, MIDC PAWANE, NAVI MUMBAI


GK-05 with 3m column height
Vertical secondary condenser of GK-05
Horizontal primary condenser of GK-05
GK-05
CONDENSER
01

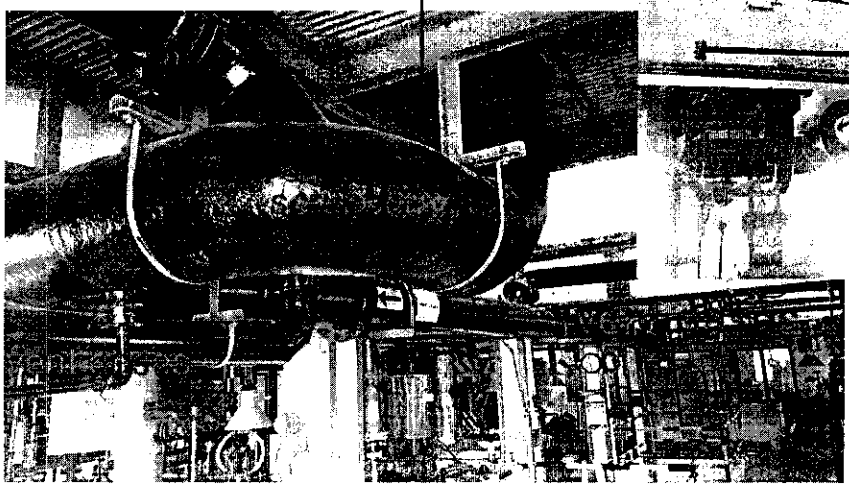


Double condensers for SK-01

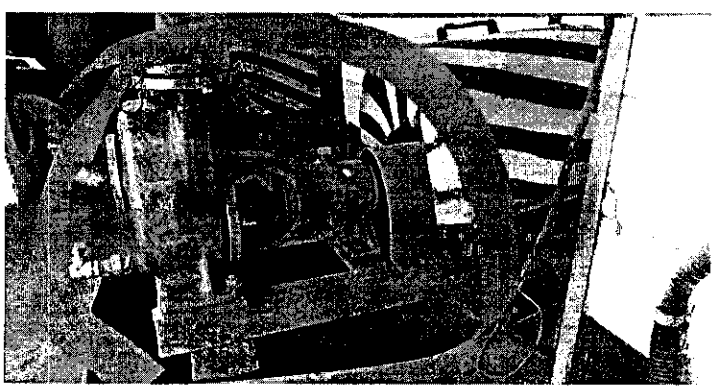
SK-01 with 14m column height

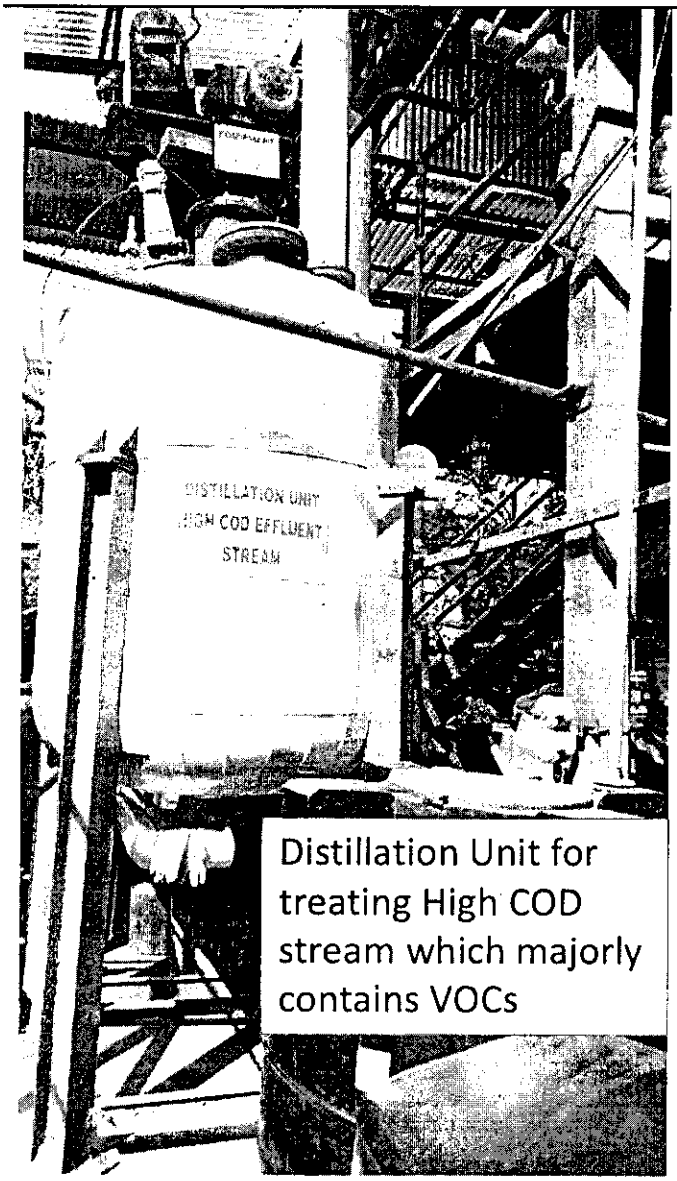
Process vents directed towards scrubber

Scrubber with concurrent mechanism



Mechanical Seal on Process Pumps





Distillation Unit for treating High COD stream which majorly contains VOCs

Closed System for handling waste water.
The image shows that the channels handling waste water are closed systems.
The chambers with lids are placed at regular intervals for maintenance.

287

zydus

Takeda

Date – 12 th Feb 2024

To,
The Regional Officer - Navi Mumbai
Maharashtra Pollution Control Board,
Raigad Bhavan, 7th Floor, Sector 11,
Belapur, Navi Mumbai - 400614

Sub: Direction under provision of The Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act,1981and Hazardous and Other Waste (Management and transboundary) Rules, 2016.

Ref: 1. Consent to operate granted to your unit by MPC board.
2. Hon'ble, NGT, WB, Pune in respect of
3. CPCB mitigation plan for odour and air pollution industries source in this area.
4. Legal Action Proposal vide no. MPCB-LEGAL_ACTION- 261223034.

Respected Sir,

With Reference to sub and letter no. MPCB/RONM/2312290005 dated 29th Dec 2023. Please find our compliance report and proposed actions for your consideration.

Short Term (Less than 1Year)

Sr. No.	**Directions**	**Status**
1.	Process vents to be connected through double condenser.	Most of the process vents are connected to double condensers. We will check all reactors, will check the emissions from it and will update you with action plan if we observe the emissions.
2.	Process vents of condenser should be of adequate height.	All process vents provided are of adequate height.
3.	The process vents of condenser should be pass through absorption media like activated carbon.	All processes stacks connected to condensers and scrubbers. We monitor each scrubber periodically. All results confirm the discharge norms. However, we will check emissions again and will update you with an action plan based on the results.
4.	Pumps shall be provided with mechanical seal to prevent leakage.	As a sustainable initiative we have provided all pumps with mechanical seals to prevent leakages.
5.	Implementation of LDAR to control NH3 emissions.	We store and use liquor ammonia and we have provided detection sensors at the Ammonia storage tank. Provided sensor tested and calibrated periodically. Sprinkler system is provided on storage tank. For confirmation of effectiveness, we will monitor the storage area and reactor where we use the Ammonia and will submit the report on it.

Zydus Takeda Healthcare Pvt. Ltd.
Registered Office : C-4, MIDC, Village Pawne, Thane Belapur Road, Vashi,
Navi Mumbai - 400703, Maharashtra, INDIA
Phone : +91-22-68375200 Fax : +91-22-2767 0223 Website : http://www.zydustakeda.com
Corporate Identity Number - U24231MH1999PTC119171

6.	Removal of VOCs by air stripping before equalization tank.	We do not receive solvent containing effluent in ETP. Solvent containing effluent we treat in full fledge Stripper, Multi Effect Evaporator and ATFD.
7.	Odours wastewater stream shall be handled in closed system form the source to primary treatment stages.	As mentioned, we handle odor wastewater in a closed system.
8.	Removal of VOCs by competing mechanism of air stripping and adsorption of solid in aeration tank.	We have segregated wastewater streams at source and wastewater containing, High TDS, COD and VOC is treated in stripper followed by Triple Effect Evaporator and ATFD. We have anaerobic treatment (UASB) before aeration tank which is closed system and bio- gas generated collected and flared.
9.	Aqueous activated sludge diffusion, by sparging the collected odor emissions into aeration tank of CETP, a typical liquid based odor control system.	No such odor is generated from aeration tank as we do not receive odor containing wastewater in aeration tank.
10.	Regular O & M of sludge thickener i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulphides, organosulphur based compounds etc.,) and ammonia.	Regular O & M of sludge thickener is practiced, we treat the sludge with lime to prevent odor from Decanter or sludge we receive after dewatering it through decanter.

Target for Long term – (1 Year & above)

Sr. No.	**Directions**	**Status**
1.	Capping various open-air-treatment systems (collection tank, equalization tank) and venting with appropriate VOC traps/ media-based scrubbers.	We have segregated solvent containing effluent streams and treat it through stripper and Tripple effect Evaporator hence no major VOC comes towards Equalization tank however as a sustainable initiative and to take extra care for prevention of environmental pollution we will check concentration of VOC from equalization tank and will revert. If required, we will take advice from expert and provide system as mentioned.

We are bound to follow the rules and regulations set by the authority and practice the same for continual improvement.

Thanking you,
Your faithfully,
For M/s. Zydus Takeda Healthcare Pvt. Ltd.

12FEB2024

Manager -EHS
Prakash Kadam

COMMON EFFLUENT TREATMENT PLANT
(THANE - BELAPUR) ASSOCIATION
(Regd. U/S 25 of Companies Act 1956, Regd. No. 11-81983)
P-60, M.I.D.C., Khairane, P.O. Koper Khairane , Thane - Belapur Road, Navi Mumbai- 400 710.
Tel. No 2763 2523, 2761 5582 Tele Fax : 2763 1724 E-mail : cetpttc@gmail.com, Website: cetpttc.org

CETP/MPCB/344

16th February, 2024

Office of the Regional Officer –Navi Mumbai
Maharashtra Pollution Control Board,
7th floor, Raigad Bhavan,
Sector 11, CBD, Belapur, Navi Mumbai.

Kind Attn: **Mr. Satish H. Padwal,** The Regional Officer – Navi Mumbai

Sub : Direction under the provisions of the Water (Prevention & Control of Pollution) Act,1974, Air (Prevention & control of Pollution) Act, 1981 and Hazardous & Other Waste (Management and Trans-boundary Movement) Rules 2016.

Dear Sir,

This has reference to your office letter No. MPCB/RONM/2401170003 dated 17/01/2024, received by mail in our office on 18/01/2024 & our time extension request letter no. CETP/MPCB/339 dated 25/01/2024.

This CETP was surprised to receive this letter as Air pollution & Odour nuisance issue has not been an issue attributed to this CETP, However, keeping in mind the larger picture for TTC area and a part of continual improvement. we have studied and evaluated all the points of direction.

In respect of the above referred letter, we would like to submit our point wise explanation and action plans by CETP in this regard :

Short Terms (Less than 1 Year) -

Point No. - 1 : Evaluation of the Feasibility of a tertiary treatment system for CETP :

CETP has already started exploring tertiary treatment options by setting up a RO plant of 100 m3 / hr, capacity which is operational for last few years. But we find that this is not a commercially viable process for scale up to the volumes being handled in CETP. We are regularly meeting our outlet standards as prescribed by the MPCB consent order. Our CETP is in the process of search for any other tertiary treatment option which will be technically and commercially suitable

Point No. - 2 : Removal of VOCs by volatilization and air stripping at equalization tank :

CETP has installed the Scrubbing system to the inlet effluent receiving sumps and now is in the process of installing a higher capacity double stage Scrubbing system as directed by you.
CETP has also decided to do the qualitative analysis of effluent from equalization tanks to know the presence of hydrophilic and hydrophobic solvent in the effluent. Based on this study, if found, we will go with the suitable technology according to your suggestion.

Point No. - 3 : Removal of VOCs by volatilization and weir drop by clarifiers tank :

The weir drops by clarifiers in our CETP is the "V" notch area where we will cover it if the VOC's are found in our qualitative analysis of effluent.

Contd.....

Point No. - 4 : Removal of VOCs by competing mechanisms of air stripping, biodegradation and adsorption solids in aeration tank :

For removal of VOCs by competing mechanism of air stripping and biodegradation, our Aeration tank has surface aerators for air stripping in tank & biodegradation through ASP, is also happening. Regarding use of adsorption solids in the aeration tank, we are looking forward to suitable adsorbents that are available for adding in the system.

Point No. – 5 : Partial recycling of settled aqueous activated sludge or mixed liquor from Secondary clarifier aerobic bioreactors to the inlet of the CETP head work (screens, grit chamber, pumping station, primary clarifiers) :

Partial recycling of settled aqueous activated sludge or mixed liquor from Secondary clarifier / aerobic bioreactors to the inlet of the CETP head work is not feasible due to locational difference as existing in the present plant layout & capacity suitable for the present situation, However, we are recycling in the beginning of the secondary in our daily process.

Point No. 6: Aqueous-activated sludge diffusion, by sparging the collected odor emission into aeration tank of CETP, a typical liquid-based odor control system :

Aqueous-activated sludge diffusion, by sparging the collected odor emission into the aeration tank is the process of taking the back wash liquid media of the inlet sump scrubber system to the aeration tank, which we are already doing.

Point No. - 7: Regular O&M of sludge thickeners i.e. treating the sludge with lime or iron salts to encourage thickening and reduce the degassing of sulfurous compounds (H2S, organic sulfide, organosulphur-based compounds, etc.) and ammonia :

Not technically feasible nor we need it because we are using modernized sludge thickeners & sludge dewatering machines because of which we don't have any sulfurous compounds gas emission. We do not see any need for any addition

Point No. – 8 : Short-terms (less than 1 year) Preventive measures to control seepage, leakage, from chambers CETP & conveyance pipeline of raw and treated effluent :

The CETP pipelines, and chambers O & M is with MIDC authorities and our CETP has implemented vigilance team day & night as a preventive measure for the MIDC drainage pipeline and chambers to control seepage / leakage and prompt attention is notified to MIDC on observing any abnormalities.

Long Terms (1 year and above) –

Point No. – 1 : Capping of various open-air treatment systems (collection tanks, equalization tanks) and ventire with appropriate VOC traps / media-based scrubbers biological / chemical :

This action is already done in the Inlet receiving sumps with media-based scrubbers. In equalization tank the CETP receives varying quality of effluent from the industries of the TTC area for which we need to do the qualitative and quantitative analysis (as mentioned in point No.2) at least for 6 months to know the correct VOCs received if any at our CETP. Thereafter based on this study will be able to come out with an appropriate VOC control system in Equalisation Tanks.

Contd.....

Point No. – 2 : Development of adequate green belt along the periphery, especially in plot no. 18 near to highway & sector-11 of Vashi :

CETP already has the green belt along the periphery of plot P – 18. And now we are in the process of creating dense green belt with additional plantation of high growing trees.

Point No. - 3 : Regular O&M of effluent conveyance system :

Regular O & M of effluent conveyance system is done by MIDC. In addition to this, CETP is providing day & night vigilance along the net work for the immediate problem identification i.e. preventive measures. Also as explanation given in the above short term point no. 8.

Point No. - 4 : Provision of buffer storage tanks (for raw & treated effluent) with adequate, in case of breakage / blockage of effluent conveyance pipelines :

As for buffer storage tank for inlet effluent, we have newly constructed a 600 m3 capacity RCC above ground tank and taken in use. And for treated effluent we have an additional clarifier cum Clariflocculator of 2500 m3 capacity within the process layout of P-60.

We would like to bring to your kind notice that CETP (Thane-Belapur) Association has been taking maximum efforts in maintaining the standard of treated effluent well below MPCB norms. We earnestly request MPCB to note the fact that this CETP is working 24 x 7 all 365 days for the past 26 years without much standby units and also there is no space to put up stand by units. Despite all these hurdles, we always ensure that treated effluent meeting present discharge limits, is discharged through MIDC maintained underground discharge line and there is absolutely no cause of willful violation of provisions of the water (Prevention& Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act. 1981.

While we have presented before you our detailed explanation and corrective actions, we reiterate once again that there is no willful violation of consent conditions and therefore, request you to consider this matter favorably and not to initiate any action in this matter.

Thanking you,

Yours faithfully,
For CETP (Thane – Belapur) Association

S. R. Iyer
Chairman

Encl : As above

Copy to :
1) The Joint Director (WPC), MPCB, Sion, Mumbai.
2) Law Officer (P&L Divn), MPCB, Sion, Mumbai.
3) Sub-Regional Officer, Navi Mumbai-I

TRANS THANE CREEK WASTE MANAGEMENT ASSOCIATION

(PROMOTED BY THANE BELAPUR INDUSTRIES ASSOCIATION)

Plot No. P-128, TTC MIDC Indl. Area, (Near L & T Infotech Ltd.)
Shil Mahape Road, Mahape, Navi Mumbai - 400 710.
Tel. : 86579 14243 / 86579 14244, Telfax : 2761 0153,
E-mail : ttcwmam@gmail.com, ttcwmamlab@gmail.com
Website : www.ttcwastemanagement.com
CIN NO. : U37100MH1998NPL117284

TTCWMA

RINA

Certified to ISO 9001:2015 and ISO 45001:2018

Recognised by Ministry of Environment, Forest & Climate Change (MoEF)

Date: 12.03.2024

To,
Regional Officer (RO),
Maharashtra Pollution Control Board,
Raigad Bhavan, CBD Belapur,
Navi Mumbai – 400 614.

Sub: - Reply to the directions issued to us on 28.02.2024

Sir,

Please refer to the directions issued vide reference no. MPCB / RONM / MPCB / PD / 2402280003.

With reference to the above directions issued, we will implement following time bound action plans and comply the directions.

Short Term Action Plan -

a. Good landfill practices viz. adequate compaction; effective use of appropriate type of daily cover; progressive capping & restoration; effective landfill gas management.

1. The wastes will be compacted adequately and leveled to proper slope.
2. The waste disposed will be covered daily at the end of the day.
3. The landfill after reaching its holding capacity will be permanently capped as per CPCB guidelines.
4. During permanent caping vent lines will be provided to check the quality of emissions.

b. & c. Regarding mitigation of air pollution during stabilization of hazardous waste.

TTCWMA has already provided blower above the waste mixing pits with suction arrangements followed by scrubber and blower.

We are complying the above points.

c. MEE/MVR - VOC control

Will provide suitable gas scrubbing system for scrubbing the Non-condensable gas emitted from the vacuum pump to prevent the emissions of trace organic vapors if any, to the atmosphere.

SRO 1

TRANS THANE CREEK WASTE MANAGEMENT ASSOCIATION
(PROMOTED BY THANE BELAPUR INDUSTRIES ASSOCIATION)
Plot No. P-128, TTC MIDC Indl. Area, (Near L & T Infotech Ltd.)
Shil Mahape Road, Mahape, Navi Mumbai - 400 710.
Tel. : 86579 14243 / 86579 14244, Telfax : 2761 0153,
E-mail : ttcwmam@gmail.com, ttcwmamlab@gmail.com
Website : www.ttcwastemanagement.com
CIN NO. : U37100MH1998NPL117284
TTCWMA
RINA
Certified to ISO 9001:2015 and ISO 45001:2018
Recognised by Ministry of Environment, Forest & Climate Change (MoEF)

Long Term Action Plan -

Compliance as per CPCB guidelines with respect to closure and post closure maintenance plan.

As per CPCB guidelines the closed landfill is to be maintained for 30 years by monitoring the air emissions, checking the underground water quality, maintaining the green cover, etc.

TTCWMA is well equipped with machinery and manpower to monitor the various environmental parameters.

We will also do third party analysis of the environmental parameters.

For monitoring the environmental parameters and maintaining the site; post closure, we have created a joint escrow fund with MPCB.

Regarding utilization of the land after closure, there is no specific guidelines issued.

But suggestions are made for installing solar panel on the top of closed landfill to generate green energy.

Another suggestion is that after undertaking the due diligence of the closed landfill cell, the mining of the landfill can be done for resource recovery.

TTCWMA will implement appropriate actions as suggested by the authorities in due course of time.

Regards,

For Trans Thane Creek Waste Management Association

P. M. Sreevalsan
Site Manager

TRANS THANE CREEK WASTE MANAGEMENT ASSOCIATION NAVI MUMBAI

नवी मुंबई महानगरपालिका

Navi Mumbai Municipal Corporation

प्लॉट नं 1 व 2, गोवर्धनी चौक, सेक्टर 15ए, सी.बी.डी., बेलापूर ,नवी मुंबई 400 614
दूरध्वनी क्र: 2756 7001
फॅक्स : 2756 7002

Plot No. 1 & 2, Govardhani Chowk, Sec. 15A, C.B.D., Belapur, Navi Mumbai – 400 614
Tel. No.: 2756 7001
Fax No.: 2756 7002

No. NMMC/EE/ 161 /2024
Date: 12/06/2024

To,
Regional Officer,
Maharashtra Pollution Control Board (MPCB)
7th Floor, Raigad Bhavan, Sector 11,
CBD Belapur, Navi Mumbai,
Maharashtra 400614

Sub: **Compliance of Action Taken Report as per Directions under the provision of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act 1981 and Hazardous and Other Waste (Management and Trans Boundary Movement) Rules 2016.**

Ref: Letter No: MPCB/RONM/2401240002, dtd: 24/01/2024

Respected Sir,

In regards to the above subject please find below the of Action Taken Report as per Directions under the provision of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act 1981 and Hazardous and Other Waste (Management and Trans Boundary Movement) Rules 2016.

Sr No.	Direction's	Actions Taken
1.	It is obligatory to provide adequate and scientific treatment and disposal arrangements as well as air pollution control devices so as to achieve the standards prescribed in the consent order and to dispose of it in accordance with the condition laid down for disposal in the consent.	• 02 Multipurpose sprayer and Dust suppression vehicle have been purchased under 15 Finance Commission scheme (XVFC) to implement and bring the national clean air quality standards within the prescribed limits. • These Multipurpose sprayer and Dust suppression vehicle's are used at Landfill site on regular basis to mitigate air pollution control devices so as to achieve the standards prescribed in the consent order. • Additionally, Procurement of 03 Mist Spray Machines & 01 EV Dust sweeping Machine will be done from XVFC funds. • Moreover, Miyawaki plantation of approximately 12,500 native plants will be done at MSW plant throught the periphery of the landfill site so as to control toxicity levels within

		the site.
2.	It is obligatory to provide secure landfill site for the collection & disposal of non-biodegradable municipal solid waste.	• Municipal Solid Waste (MSW) plant located at Turbhe has 750 TPD of capacity to process waste. • The Non-Biodegradable waste received at the plant is converted to Refuse Derive Fuel (RDF).
3.	Navi Mumbai Municipal Corporation have been directed to submit concrete proposal to provide separate Municipal Solid Waste Management with state of art technology as the instructions of CPCB and MPCB directions in th MSW matters.	• Navi Mumbai Municipal Corporation has already established a separate Municipal Solid Waste Management plant located at Turbhe having 750 TPD capacity. • The plant comprises of Waste to Compost & Refuse derived fuel (RDF) technology.
4.	Measures as per CPCB Guidelines on odor monitoring in urban MSW landfills.	• Deodorants are sprayed in the MSW plant & its vicinity every 3 to 5 times a day.
5.	Development of waste to energy proposal for solid waste disposal on daily basis.	• Navi Mumbai Municipal Corporation has submitted the waste to energy (WTE) plant proposal to the Government of Maharashtra. • Accordingly, Expression of interest has been received by Oil and Natural Gas Corporation (ONGC) to set up Compressed Bio Gas (CBG) & Waste to Energy (WTE) plant on Public Private Partnership (PPP) model. • The project is in approval stage and will be executed as early as possible.
6.	Capping of Legacy waste with extraction facility.	• Navi Mumbai Municipal Corporation Jurisdiction does not contain any Legacy waste.

However, to solve the problem of air pollution in the city through remedial measures, the concerned departments within NMMC have been instructed via notices to undertake all the necessary measures to control air pollution.

Thank you & Regards.

Executive Engineer (Environment),
Navi Mumbai Municipal Corporation.

Copy to: City Engineer, Navi Mumbai Municipal Corporation.

नवी मुंबई महानगरपालिका	Navi Mumbai Municipal Corporation
नमुंमपा मुख्यालय, भु.क्र.१ व २, किल्ले गावठाणजवळ, पामबीच जंक्शन, सेक्टर -१५ए, सी.बी.डी., बेलापूर, नवी मुंबई - ४०० ६१४ दुरध्वनी क्र. : २७५६ ७१३०	NMMC Headquarter, Plot No.1 & 2, Near Kille Gaonthan, Palmbeach Junction, Sector-15A, C.B.D., Belapur, Navi Mumbai - 400 614. TEL. No. : 2756 7130

NMMC/S.S/EE/ 441/2024
Dated:- 12/ 6 /2024

To,
Regional Officer,
Maharashtra Pollution Control Board (MPCB),
7th Floor, Raigad Bhavan, Sector-11,
CBD Belapur, Navi Mumbai-400614.

Sub: Direction under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Waste (Management and Trans-boundary Movement) Rules 2016

Ref :
1. Consent to Operate granted to your unit by MPC board.
2. Hon'ble, NGT, WB, Pune in respect of Sumoto Case No. 197/2023
3. CPCB mitigation plan for odour and air pollution industries source in this area.
4. MAS/Suo Moto Case No. 59/2016.
5. Legal Action Proposal vide no. MPCB-LEGAL ACTIONS-010621008.
6. Letter No: MPCB/RONM/2401240001, dtd: 24/01/2024

Respected Sir,

In regards to the above subject please find below the of Action Taken as per Directions under the provision of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act 1981 and Hazardous and Other Waste (Management and Trans Boundary Movement) Rules 2016.

Sr. No.	Direction's	Actions Taken
	Short Term (Less than 1 year)	
1	Diversion of untreated sewage into existing STP for Corp treatment.	Slums from Digha to Turbhe area on MIDC/Government land, NMMC has constructed toilets along with septic tank and sludge collected by mechanical suction machine from septic tank and treated near by STP. Many individual toilets constructed under IHHL Scheme. Proposed sewer line of various node from Digha to Turbhe is going on and location of sewerage pump house in Digha and Airoli node yet not finalised due to unavailability of land from the MIDC and decision of land for alternate locations is going on.
2	In-situ bioremediation/ phytoremediation / green bridge technology/microbial dosing/ soil scape filter technology/ floating island technology etc. of the Kopri & Alok nalla other nallas where untreated domestic sewage is being discharged.	Sewerage from Small pocket of slum area near the Nalla from Digha to Turbhe in NMMC area is proposed to treat by using Package Treatment Plant (PTP).
3	De-sludging of accumulated sludge from the Kopri & Alok nalla and other nallas where untreated domestic sewage is being discharged.	NMMC is proposing interception and diversion scheme to divert the dry weather flow from the Nalla to the existing sewerage system.
4	Regular cleaning of nallas for ut septic conditions. removal of debris, to ensure continuous flow with.	Solid Waste Management Department of NMMC doing desilting of Nallah and removal of debris on regular basis every year.
	Long term (1 year and above)	
1	Establishment of sewerage system in the un-sewered area and its connectivity to existing STP/commissioning of new STP.	NMMC has already prepared DPR for unsewered area from Digha to Turbhe including Sewerage line network, Sewerage Pumping Station and Sewage Treatment Plant, and some of Sewerage Scheme is under execution.

Thank you & regard.

12-6-2024

Executive Engineer (Sewerage)
Navi Mumbai Municipal Corporation

Copy to:- Additional City Engineer, Navi Mumbai Municipal Corporation.

Average AQI May to July 2024		
Belapur		
Sr. No.	Date	AQI
May-24		
1	5/1/2024	102
2	5/2/2024	111
3	5/3/2024	121
4	5/4/2024	149
5	5/5/2024	152
6	5/6/2024	157
7	5/7/2024	128
8	5/8/2024	131
9	5/9/2024	65
10	5/10/2024	148
11	5/11/2024	90
12	5/12/2024	83
13	5/13/2024	103
14	5/14/2024	102
15	5/15/2024	108
16	5/16/2024	106
17	5/17/2024	109
18	5/18/2024	101
19	5/19/2024	100
20	5/20/2024	75
21	5/21/2024	85
22	5/22/2024	98
23	5/23/2024	101
24	5/24/2024	103
25	5/25/2024	68
26	5/26/2024	66
27	5/27/2024	78
28	5/28/2024	79
29	5/29/2024	98
30	5/30/2024	101
31	5/31/2024	74
Average		103

Jun-24		
1	6/1/2024	60
2	6/2/2024	72
3	6/3/2024	85
4	6/4/2024	93
5	6/5/2024	69
6	6/6/2024	72
7	6/7/2024	73
8	6/8/2024	58
9	6/9/2024	52
10	6/10/2024	47
11	6/11/2024	52
12	6/12/2024	50
13	6/13/2024	60
14	6/14/2024	50
15	6/15/2024	60
16	6/16/2024	55
17	6/17/2024	61
18	6/18/2024	54
19	6/19/2024	55
20	6/20/2024	79
21	6/21/2024	61
22	6/22/2024	65
23	6/23/2024	54
24	6/24/2024	49
25	6/25/2024	51
26	6/26/2024	49
27	6/27/2024	60
28	6/28/2024	60
29	6/29/2024	91
30	6/30/2024	126
Average		64

Jul-24		
1	7/1/2024	52
2	7/2/2024	44
3	7/3/2024	59
4	7/4/2024	70
5	7/5/2024	43
6	7/6/2024	52
7	7/7/2024	40
8	7/8/2024	36
9	7/9/2024	37
10	7/10/2024	44
11	7/11/2024	47
12	7/12/2024	64
13	7/13/2024	43
14	7/14/2024	44
15	7/15/2024	45
16	7/16/2024	48
17	7/17/2024	43
18	7/18/2024	30
19	7/19/2024	30
20	7/20/2024	40
21	7/21/2024	46
22	7/22/2024	36
23	7/23/2024	36
24	7/24/2024	31
25	7/25/2024	51
26	7/26/2024	47
27	7/27/2024	45
28	7/28/2024	45
29	7/29/2024	41
30	7/30/2024	42
31	7/31/2024	40
Average		44

300

Average AQI May to July 2024		
Kopari Gaon		
Sr. No.	Date	AQI
May-24		
1	5/1/2024	129
2	5/2/2024	135
3	5/3/2024	109
4	5/4/2024	87
5	5/5/2024	160
6	5/6/2024	75
7	5/7/2024	64
8	5/8/2024	64
9	5/9/2024	59
10	5/10/2024	47
11	5/11/2024	133
12	5/12/2024	52
13	5/13/2024	77
14	5/14/2024	150
15	5/15/2024	183
16	5/16/2024	104
17	5/17/2024	124
18	5/18/2024	80
19	5/19/2024	45
20	5/20/2024	118
21	5/21/2024	39
22	5/22/2024	109
23	5/23/2024	109
24	5/24/2024	109
25	5/25/2024	109
26	5/26/2024	109
27	5/27/2024	109
28	5/28/2024	109
29	5/29/2024	109
30	5/30/2024	109
31	5/31/2024	160
Average		103

301

Jun-24		
1	6/1/2024	158
2	6/2/2024	158
3	6/3/2024	157
4	6/4/2024	109
5	6/5/2024	109
6	6/6/2024	85
7	6/7/2024	73
8	6/8/2024	60
9	6/9/2024	50
10	6/10/2024	44
11	6/11/2024	49
12	6/12/2024	55
13	6/13/2024	50
14	6/14/2024	53
15	6/15/2024	59
16	6/16/2024	58
17	6/17/2024	69
18	6/18/2024	78
19	6/19/2024	78
20	6/20/2024	58
21	6/21/2024	50
22	6/22/2024	57
23	6/23/2024	81
24	6/24/2024	47
25	6/25/2024	44
26	6/26/2024	25
27	6/27/2024	23
28	6/28/2024	30
29	6/29/2024	46
30	6/30/2024	42
Average		69

Jul-24		
1	7/1/2024	52
2	7/2/2024	49
3	7/3/2024	53
4	7/4/2024	40
5	7/5/2024	47
6	7/6/2024	61
7	7/7/2024	49
8	7/8/2024	29
9	7/9/2024	28
10	7/10/2024	40
11	7/11/2024	33
12	7/12/2024	33
13	7/13/2024	30
14	7/14/2024	33
15	7/15/2024	42
16	7/16/2024	48
17	7/17/2024	79
18	7/18/2024	45
19	7/19/2024	24
20	7/20/2024	27
21	7/21/2024	32
22	7/22/2024	31
23	7/23/2024	26
24	7/24/2024	36
25	7/25/2024	30
26	7/26/2024	47
27	7/27/2024	49
28	7/28/2024	59
29	7/29/2024	50
30	7/30/2024	48
31	7/31/2024	38
Average		42

Average AQI May to July 2024		
Sanpada		
Sr. No.	Date	AQI
May-24		
1	5/1/2024	102
2	5/2/2024	115
3	5/3/2024	111
4	5/4/2024	84
5	5/5/2024	94
6	5/6/2024	67
7	5/7/2024	69
8	5/8/2024	72
9	5/9/2024	61
10	5/10/2024	61
11	5/11/2024	77
12	5/12/2024	76
13	5/13/2024	109
14	5/14/2024	109
15	5/15/2024	112
16	5/16/2024	98
17	5/17/2024	94
18	5/18/2024	82
19	5/19/2024	82
20	5/20/2024	80
21	5/21/2024	74
22	5/22/2024	77
23	5/23/2024	80
24	5/24/2024	73
25	5/25/2024	72
26	5/26/2024	71
27	5/27/2024	75
28	5/28/2024	68
29	5/29/2024	68
30	5/30/2024	69
31	5/31/2024	66
Average		82

Jun-24		
1	6/1/2024	69
2	6/2/2024	65
3	6/3/2024	71
4	6/4/2024	84
5	6/5/2024	68
6	6/6/2024	61
7	6/7/2024	73
8	6/8/2024	68
9	6/9/2024	49
10	6/10/2024	47
11	6/11/2024	72
12	6/12/2024	63
13	6/13/2024	57
14	6/14/2024	55
15	6/15/2024	45
16	6/16/2024	57
17	6/17/2024	56
18	6/18/2024	55
19	6/19/2024	54
20	6/20/2024	49
21	6/21/2024	55
22	6/22/2024	57
23	6/23/2024	61
24	6/24/2024	59
25	6/25/2024	51
26	6/26/2024	46
27	6/27/2024	41
28	6/28/2024	44
29	6/29/2024	44
30	6/30/2024	42
Average		57

Jul-24		
1	7/1/2024	53
2	7/2/2024	39
3	7/3/2024	43
4	7/4/2024	43
5	7/5/2024	56
6	7/6/2024	57
7	7/7/2024	47
8	7/8/2024	37
9	7/9/2024	40
10	7/10/2024	41
11	7/11/2024	41
12	7/12/2024	39
13	7/13/2024	33
14	7/14/2024	37
15	7/15/2024	37
16	7/16/2024	39
17	7/17/2024	44
18	7/18/2024	31
19	7/19/2024	32
20	7/20/2024	29
21	7/21/2024	31
22	7/22/2024	38
23	7/23/2024	36
24	7/24/2024	39
25	7/25/2024	36
26	7/26/2024	49
27	7/27/2024	49
28	7/28/2024	59
29	7/29/2024	51
30	7/30/2024	51
31	7/31/2024	39
Average		42

Average AQI May to July 2024		
Nerul		
Sr. No.	Date	AQI
May-24		
1	01-05-2024 24:00	
2	02-05-2024 24:00	
3	03-05-2024 24:00	
4	04-05-2024 24:00	124
5	05-05-2024 24:00	158
6	06-05-2024 24:00	113
7	07-05-2024 24:00	
8	08-05-2024 24:00	
9	09-05-2024 24:00	
10	10-05-2024 24:00	
11	11-05-2024 24:00	
12	12-05-2024 24:00	
13	13-05-2024 24:00	113
14	14-05-2024 24:00	140
15	15-05-2024 24:00	
16	16-05-2024 24:00	
17	17-05-2024 24:00	
18	18-05-2024 24:00	91
19	19-05-2024 24:00	98
20	20-05-2024 24:00	66
21	21-05-2024 24:00	103
22	22-05-2024 24:00	97
23	23-05-2024 24:00	104
24	24-05-2024 24:00	92
25	25-05-2024 24:00	83
26	26-05-2024 24:00	74
27	27-05-2024 24:00	89
28	28-05-2024 24:00	88
29	29-05-2024 24:00	91
30	30-05-2024 24:00	89
31	31-05-2024 24:00	96
Average		101

Jun-24		
1	6/1/2024	69
2	6/2/2024	66
3	6/3/2024	82
4	6/4/2024	106
5	6/5/2024	77
6	6/6/2024	73
7	6/7/2024	81
8	6/8/2024	55
9	6/9/2024	38
10	6/10/2024	35
11	6/11/2024	58
12	6/12/2024	50
13	6/13/2024	49
14	6/14/2024	46
15	6/15/2024	56
16	6/16/2024	57
17	6/17/2024	59
18	6/18/2024	54
19	6/19/2024	56
20	6/20/2024	48
21	6/21/2024	50
22	6/22/2024	54
23	6/23/2024	65
24	6/24/2024	49
25	6/25/2024	54
26	6/26/2024	35
27	6/27/2024	30
28	6/28/2024	36
29	6/29/2024	48
30	6/30/2024	50
Average		56

Jul-24		
1	7/1/2024	60
2	7/2/2024	ND
3	7/3/2024	ND
4	7/4/2024	ND
5	7/5/2024	ND
6	7/6/2024	ND
7	7/7/2024	ND
8	7/8/2024	ND
9	7/9/2024	38
10	7/10/2024	40
11	7/11/2024	38
12	7/12/2024	32
13	7/13/2024	28
14	7/14/2024	32
15	7/15/2024	37
16	7/16/2024	37
17	7/17/2024	37
18	7/18/2024	23
19	7/19/2024	26
20	7/20/2024	27
21	7/21/2024	24
22	7/22/2024	35
23	7/23/2024	34
24	7/24/2024	40
25	7/25/2024	34
26	7/26/2024	50
27	7/27/2024	81
28	7/28/2024	152
29	7/29/2024	107
30	7/30/2024	61
31	7/31/2024	ND
Average		47

Average AQI May to July 2024		
Mahape		
Sr. No.	Date	AQI
May-24		
1	01-05-2024 24:00	129
2	02-05-2024 24:00	148
3	03-05-2024 24:00	146
4	04-05-2024 24:00	120
5	05-05-2024 24:00	144
6	06-05-2024 24:00	
7	07-05-2024 24:00	119
8	08-05-2024 24:00	107
9	09-05-2024 24:00	107
10	10-05-2024 24:00	107
11	11-05-2024 24:00	109
12	12-05-2024 24:00	108
13	13-05-2024 24:00	109
14	14-05-2024 24:00	115
15	15-05-2024 24:00	122
16	16-05-2024 24:00	118
17	17-05-2024 24:00	123
18	18-05-2024 24:00	88
19	19-05-2024 24:00	
20	20-05-2024 24:00	
21	21-05-2024 24:00	127
22	22-05-2024 24:00	120
23	23-05-2024 24:00	123
24	24-05-2024 24:00	102
25	25-05-2024 24:00	Atleast 3 inputs*
26	26-05-2024 24:00	82
27	27-05-2024 24:00	150
28	28-05-2024 24:00	141
29	29-05-2024 24:00	139
30	30-05-2024 24:00	166
31	31-05-2024 24:00	134
Average		122

Jun-24		
1	6/1/2024	93
2	6/2/2024	80
3	6/3/2024	104
4	6/4/2024	82
5	6/5/2024	105
6	6/6/2024	80
7	6/7/2024	87
8	6/8/2024	87
9	6/9/2024	47
10	6/10/2024	45
11	6/11/2024	91
12	6/12/2024	76
13	6/13/2024	55
14	6/14/2024	53
15	6/15/2024	52
16	6/16/2024	62
17	6/17/2024	62
18	6/18/2024	64
19	6/19/2024	52
20	6/20/2024	43
21	6/21/2024	69
22	6/22/2024	68
23	6/23/2024	85
24	6/24/2024	58
25	6/25/2024	43
26	6/26/2024	40
27	6/27/2024	34
28	6/28/2024	35
29	6/29/2024	51
30	6/30/2024	52
Average		65

311

Jul-24		
1	7/1/2024	49
2	7/2/2024	71
3	7/3/2024	59
4	7/4/2024	69
5	7/5/2024	57
6	7/6/2024	64
7	7/7/2024	50
8	7/8/2024	34
9	7/9/2024	38
10	7/10/2024	55
11	7/11/2024	47
12	7/12/2024	40
13	7/13/2024	34
14	7/14/2024	40
15	7/15/2024	54
16	7/16/2024	49
17	7/17/2024	48
18	7/18/2024	34
19	7/19/2024	39
20	7/20/2024	ND
21	7/21/2024	ND
22	7/22/2024	ND
23	7/23/2024	ND
24	7/24/2024	ND
25	7/25/2024	39
26	7/26/2024	65
27	7/27/2024	68
28	7/28/2024	67
29	7/29/2024	ND
30	7/30/2024	ND
31	7/31/2024	ND
Average		51