

**REPORT OF TNPCCB AS PER THE HON'BLE NATIONAL
GREEN TRIBUNAL(SZ), CHENNAI ORDER DATED
15/03/2022 IN O.A.NO.70 OF 2020**

**Submitted to
Hon'ble National Green Tribunal (SZ)
Chennai**

April 2022

1. Orders of the Hon'ble Tribunal

It is respectfully submitted that the Hon'ble National Green Tribunal (SZ), Chennai in the order dated.15.03.2022 in O.A.No.70 of 2020 directed vide,

Para 04 – In the meantime, the State Pollution Control Board is directed to file a further report regarding the compliance of the recommendations by the 9th Respondent on or before 13.04.2022 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

The copy of the order is enclosed as Annexure-I.

It is respectfully submitted that the present status of compliance of the TNPCB directions and the Joint Committee recommendations by the respondent unit are submitted below based on the inspection carried out by the TNPCB officials on 09.04.2022.

<u>Compliance status of the directions issued by TNPCB</u> <u>(Details as on 09.04.2022)</u>			
Sl. No.	Directions issued by the TNPCB vide Proc. dated 20.05.2020	Compliance Status furnished by M/s.MFL as on 05.04.2022	Remarks of TNPCB
(i)	To restart the unit only after installation of at least two ammonia sensors at the rear end of the unit towards the village direction where complaint received.	Complied. Installed eleven ammonia sensors within the unit premises in all directions to measure the real time value of ammonia in the ambient air.	Complied. The unit has installed eleven ammonia sensors within the unit premises in all directions to measure the real time value of ammonia in the ambient air which were in operation at the time of inspection.
(ii)	To restart the unit only after obtaining approval of updated safety audit report containing the information specified in Schedule-8 from the competent authority notified in Schedule-5 as per the rule 10 of the Manufacture, Storage and Import of Hazardous Chemical Rules 1989 as amended.	Complied. Safety Audit completed and submitted the report to Directorate of Industrial Safety & Health (DISH).	Complied. The unit has furnished the safety auditor report.
(iii)	The unit shall comply with the all the directions issued by the TNPCB Proc. Dated 12.05.2020.		

1.	The unit shall operate and maintain the sewage treatment plant (CETP as stated by the unit) components efficiently and continuously so as to achieve the treated sewage standards prescribed by the board consistently and ensure that the treated sewage is completely utilized for gardening within the unit premises without any stagnation.	<p>Complied.</p> <p>The treated sewage samples collected from STP by the TNPCB in the past periods are meeting all the standards prescribed by the Board.</p>	<p>Complied.</p> <p>The unit is operating and maintaining the sewage treatment plant (CETP as stated by the unit) components continuously so as to achieve the treated sewage standards prescribed by the Board.</p> <p>The treated sewage is completely utilized for gardening within the unit premises without any stagnation.</p>
2.	The unit shall provide RO plant for the entire quantity of trade effluent generated from cooling tower as Cooling Water Blow Down (4800KLD), Boiler Blow Down (30KLD) and DM plant regeneration (300KLD) as reported which is one of the CEPI long term action plan.	<p>Complied.</p> <p>Details: One of the existing RO stream already has been dedicated to treat Cooling Water Blow Down (CWBD).</p> <p>New Plant: Proposed RO plant for Cooling water Blow Down Treatment equipment installation has been completed. Commissioning activities are in progress. Expected trial run by April 2022.</p>	<p>Being Complied.</p> <p>The unit is having three RO system for treatment of secondary treated sewage procured from Kodungaiyur STP. At present, the unit is partially procuring Tertiary Treated RO permeate (TTRO water) from Kodungaiyur STP, so one RO system (line A) is in standby, this line A was used to treat above said wastewater generated from the unit until commencement of new dedicated RO plant. Dedicated RO Plant for Cooling Water Blow Down Treatment equipment installation has been completed now & trail run is in progress at the time of inspection.</p>
			
<p align="center">Dedicated RO Plant installed for Cooling Water Blow Down effluent</p>			

3.	The unit shall ensure zero liquid discharge of trade effluent, thereby no discharge of untreated/treated trade effluent on land or into any water bodies either inside or outside the premises at any point of time.	<p>Complied. Steam condensate and steam leakages are being attended as and when it occurs and not connected to storm water drain. Dedicated lines erected to divert steam condensate to CT basin and process water back to the system.</p> <p>Details: Gutters have been constructed inside the plants to be used as storm water drain and under normal operating conditions no water will be discharged to the ground.</p>	<p>Complied. The unit has assured zero liquid discharge of trade effluent by adopting the following measures.</p> <ol style="list-style-type: none"> 1. Steam condensate and steam leakages are being attended as and when it occurs and not connected to storm water drain. 2. Dedicated lines erected to divert steam condensate to CT basin and process water back to the system. 3. Gutters have been constructed inside the plants to be used as storm water drain and under normal operating conditions no water will be discharged to the ground.
4.	The unit shall connect all EMFMs provided to Care Air Centre, TNPCB and CPCB.	<p>Job completed. Installation and Commissioning completed. Connectivity to TNPCB is being established.</p>	<p>Being Complied. The unit has provided EMFMs (12 Nos.) at appropriate locations and commissioned. Connectivity to WQW, TNPCB and CPCB being established.</p>
5.	The unit shall stop the discharge of underground pipe line leakages (Fire water) into old SEP's (lagoons) and to plant green belt by planting native & local specific species immediately.	<p>Complied. Steam condensate and steam leakages are being attended as and when it occurs and not connected to storm water drain. Dedicated lines erected to divert steam condensate to CT basin and process water back to the system.</p> <p>Gutters have been constructed inside the plants to be used as storm water drain and under normal operating conditions no water will be discharged to the ground. It is informed that underground pipe line leaks were already attended.</p>	<p>Complied. The unit has provided collection tank for collection of process leakage water leading to old lagoon and send back to cooling water blow down treatment plant collection tank for further treatment.</p>
6.	The unit shall replace the furnace oil usage with LNG for the boilers of capacity 55T/Hr each before June 2020, as reported.	<p>Job in progress. Details: Award of Work (AOW) issued on June 16, 2021 to M/s Thermax, Pune. Material supply and</p>	<p>Not Complied. The unit committed to comply by July 2022.</p>

		Installation period is 8 months. Pre installation activities have started. Earlier there was a delay due to Covid-19 restriction and now the materials are received. The entire process is expected to be completed by July 2022.	
7.	The unit shall apply for renewal of authorisation under the provisions of Hazardous & Other Wastes (Management & Trans boundary Movement) Rules 2016.	Complied. Hazardous Waste Authorisation issued by TNPCB on 19.11.2021 valid till March 31, 2026. The authorization No is 21HRC8621294.	Complied. The unit has obtained Hazardous waste authorization from the Board on 19.11.2021 valid upto 31.03.2026.
8.	In order to prevent the formation and accumulation of toxic gases inside the tanks and to prevent the occurrence of fatal accidents, while cleaning the tanks, adequate ventilation arrangements should be provided in all the concealed tanks located both above and below ground level which are meant for storing/ holding the effluents, rejects, sludge, permeate water and raw water etc., The sludge accumulated in the ETP components should be cleaned mechanically only and manual cleaning of the sludge should not be carried out under any circumstances.	Complied.	Complied. The unit is carrying out cleaning of ETP components through mechanical means.
9.	The unit shall obtain & furnish certificate of stability from the competent authority as notified in sub rule (3) of rule 12 B of the Tamil Nadu Factories Rules, 1950 for the pollution abatement measures provided in the unit.	Complied.	Complied. The unit has obtained certificate of stability from the competent authority.

10.	The unit shall complete the target of Action taken details are short term and long term action plan in CEPI area as committed by the unit without fail.		
10(I) SHORT TERM ACTION PLAN			
Action plan	Completion target	Compliance status furnished by the MFL as on 05.04.2022	Remarks of the TNPCB
Feed stock conversion form Naphtha to RLNG which will reduce energy consumption of ammonia and urea plants.	August 2019	Complied.	Complied. Naphtha to RLNG implemented.
110T/hr ATA and process condensate boiler fuel change from Furnace oil to RLNG.	August 2019	Complied.	Complied. Fuel replaced with RLNG.
Construction of a sump to recover all the water let out into the gutter which will be pumped to the cooling water blow down treatment plant where it will be treated and used for cooling water makeup.	December 2019	<p style="text-align: center;">Complied.</p> <p>As directed by TNPCB, Gutter water recovery sump with a capacity of 100KL was constructed and is in use since December, 2019 to recover water from gutter and send it back to CWBD Plant and to avoid water going to lagoon. Later on, all the underground water lines leaks were attended during TAR 2020 (May 2020) and was informed to TNPCB.</p> <p>Also, Steam condensate and steam leakages are being attended as and when it occurs and not connected to storm water drain. Steam condensate and process water lined up to CT basin.</p> <p>Gutters have been constructed inside the plants to be used as storm water drain. Hence, under normal operating conditions no water will be discharged to the ground.</p>	Complied. The unit has provided collection tank for collection of process leakage water leading to old lagoon and send back to cooling water blow down treatment plant collection tank for further treatment.

Dedicated RO to treat cooling water blow down plant outlet.	June 30, 2020	<p>Job completed. Details: One of the existing RO stream already has been dedicated to treat CWBD. New Plant: Proposed RO plant for Cooling water Blow Down Treatment equipment installation has been completed. Commissioning activities are in progress. Expected trial run by April 2022.</p>	<p>Being Complied. The unit is having three RO system for treatment of secondary treated sewage procured from Kodungaiyur STP. At present, the unit is partially procuring Tertiary Treated RO permeate (TTRO water) from Kodungaiyur STP, so one RO system (line A) is in standby, this line A was used to treat above said wastewater generated from the unit until commencement of new dedicated RO plant. Dedicated RO Plant for Cooling Water Blow Down Treatment equipment installation has been completed now & trail run is in progress at the time of inspection.</p>
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10(II) LONG TERM ACTION PLAN

Action plan	Completion target	Compliance status furnished by the MFL as on 05.04.2022	Remarks of the TNPCB
Increasing Green Belt area	1 acre to be brought under green belt every year.	Complied.	Complied. However, the unit has to further develop green belt to attain 40% of the total area as the unit is located in CEPI area.
Change of fuel from furnace oil to RLNG for boiler 1 and 2 (55T/hr each)	July 31, 2020	<p>Job is in progress. Details: Award of Work (AOW) issued on June 16, 2021 to M/s Thermax, Pune. Material supply and Installation period is 8 months. Pre installation activities have started. Earlier there was a delay due to Covid-19 restriction and now the materials are received. The</p>	<p>Not Complied. The unit committed to comply by July 2022.</p>

		entire process is expected to be completed by July 2022.	
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11.	The unit shall continue develop green belt by identifying land through Revenue department and always the native species shall be planted.	Complied.	Not Complied. Total area of the plant 270 acres. Green belt area to be developed (40% of total area of the plant) 108 acres. Green belt area so far developed 55 acres. Balance green belt area to be developed 53 acres. In this regard, the unit has to furnish time bound action plan to complete the balance green belt development either within the premises or outside the premises.
12	The unit shall undertake CSR activities with priority to provide drinking water facility, computer facilities and adequate toilet facilities in girls' schools and colleges to encourage women education especially in rural and semi urban areas.	Complied.	Complied. The unit has been advised to undertake the CSR activities regularly to the surrounding public.
13.	The unit shall provide reverse plastic vending machines in prominent public places so as to collect waste plastic bottles so as to achieve the target of banning one time use and throw plastics in Tamil Nadu and encourage recycling options.	Job is in progress. Details: Tender Floated on March 24, 2022 Bids will be opened on April 24, 2022.	Not Complied. The unit committed to comply by July 2022.
14.	The unit shall operate and maintain the existing air pollution control measures provided to the emission sources efficiently and continuously so as to achieve the Ambient Air Quality/ Stack Emission standards prescribed by the board.	Complied.	Complied. The unit is operating and maintaining the existing air pollution control measures provided to the emission sources continuously so as to satisfy the Ambient Air Quality / Stack Emission standards prescribed by the Board.

15.	The unit shall ensure that the online stack sensors provided for the parameters NH3 in urea prill tower and HF & PM in NPK train care calibrated regularly & operated and ensure that the output of the sensors are connected to TNPCB & CPCB server all times.	Complied.	Partially Complied. The unit has provided OCEMS for the emission parameters NH3 in Urea prill tower and HF, PM & NH3 in NPK train (C) and maintaining regularly & calibrated periodically to ensure that the output of the sensors are connected to TNPCB & CPCB server at all times. Connectivity to TNPCB & CPCB server for NH3 sensor provided at NPK train (C) to be completed.
16.	The unit shall re-commission the NPK train A & B only after installation of HF & PM online stack sensors in the stack attached to each train.	Both NPK train A & B are not in operation.	NPK train A&B are not in operation at present.
17.	The unit shall install PM analyser for the common stack attached with process condensate boiler 70T/hr & 110T/hr boiler and PM, SOx & NOx analyser for the common stack attached with boiler 1 & 2 (55T/ hr each) as reported.	Job completed. For Process Condensate and 110 ATA boilers stack PM data connected to care air centre and CPCB. For boiler 1 & 2 CEMS analyser, Installation has been completed on 18.08.2021 and tested. Calibration was delayed due to the non-arrival of gas cylinders. Now Calibration completed. Installation and commissioning done. Readings are under observation and Connectivity being given to TNPCB / CPCB. (Annexure II- Mail received form Vasthi Instruments).	Being Complied. The unit has installed PM analyser (OCEMS) for the common stack attached with process condensate boiler 70T/hr & 110T/hr boiler and connected to CAC, TNPCB & CPCB servers. Installation of OCEMS for the parameters PM, SOx & NOx analyser for the common stack attached with boiler 1 & 2 (55T/ hr each) are in progress and committed to comply by April 2022.
18.	The unit shall install 11 Nos. of new ammonia sensors in the ambient air on or before June 2020 as reported as the existing 10 ammonia sensors were not functioning since, 2015 due to Vardha Cyclone.	Complied.	Complied. The unit has installed 11 Nos. of new ammonia sensors in the ambient air which were in operation at the time of inspection.

19.	<p>The unit shall restore the CAAQMS station with the sensor parameters such as PM10, PM2.5, SOx, NOx, CO, NH3 & O3 as the one station near North gate is in operation and connected to CAC, Chennai and the remaining four stations were not in operation since 2016 due to Vardha Cyclone.</p>	<p>Job completed. All the 5 CAAQM stations are working fine. Data is continuously uploaded to CAC, TNPCB.</p>	<p>Complied. All the 5 CAAQM stations are working fine. Data is continuously uploaded to CAC, TNPCB. One CAAQM station near North gate with the sensors parameters such as PM10, PM2.5, SOx, NOx, CO & O3 is in operation and connected to CAC, Chennai. Another CAAQM station near ETP in Southwest direction with sensors parameters (PM₁₀, PM_{2.5}, SO₂, NOx, CO and O₃) is in operation and connected to CAC, Chennai. Another CAAQM Station near work shop (North East) with sensor parameters (PM₁₀, PM_{2.5}, SO₂, NOx, CO, O₃ & NH3) is in operation since October 2021 and connected to CAC, Chennai. Another CAAQM Station near south gate (South East) with sensor parameters (PM₁₀, PM_{2.5}, SO₂, NOx, CO, O₃ & NH3) is in operation since October 2021 and connected to CAC, Chennai. Another CAAQM Station near ammonia watch tower (South West) with sensor parameters (PM₁₀, PM_{2.5}, SO₂, NOx, CO, O₃ & NH3) is in operation since October 2021 and connected to CAC, Chennai.</p>
20.	<p>The unit shall rectify the roof defects in the temporary Hazardous waste storage shed for the proper storage of hazardous waste till its disposal.</p>	<p>Complied.</p>	<p>Complied. The unit has rectified the defects in the temporary Hazardous waste storage shed for the proper storage of hazardous waste.</p>

Compliance status on recommendations suggested by the committee for not complying with AAQ Standards and exceeding the discharge norms of source emission from utility boiler

Sl. No	Committee recommendations	Unit's reply dated as on 05.04.2022	Remarks of the TNPCB
(i)	On-line monitoring at critical emission points shall be installed to provide information about the effect of malfunctions in the process and consequently the process conditions can be corrected.	Job completed For Process Condensate and 110 ATA boilers stack PM data connected to care air centre and CPCB. For boiler 1 & 2 CEMS analyser, Installation has been completed on 18.08.2021 and tested. Calibration was delayed due to the non-arrival of gas cylinders. Now Calibration completed. Installation and commissioning done. Readings are under observation and Connectivity being given to TNPCB / CPCB. (Annexure II- Mail received form Vasthi Instruments)	Being Complied. The unit has installed PM analyser (OCEMS) for the common stack attached with process condensate boiler 70T/hr & 110T/hr boiler and connected to CAC, TNPCB & CPCB servers. Installation of OCEMS for the parameters PM, SOx & NOx analyser for the common stack attached with boiler 1 & 2 (55T/ hr each) are in progress and committed to comply by April 2022.
(ii)	Proper fuel to air combustion ratio should be maintained to keep down the NOx generation in the boiler.	Complied.	Complied. The unit is maintaining the fuel to air combustion ratio to keep down the NOx generation in the boiler.
(iii)	All liquid wastes (water in the gutter) should be properly treated and recycled into the process, so that stripping of ammonia from the process water can be minimized.	Complied.	Complied. The unit has provided ammonia stripper plant for the recovery of ammonia and reuse in the process.
(iv)	The unit has provided collection tank for process water spillage/ seepage and informed, the collected water is taken back for treatment. But during inspection, it is observed that the spillage water is collected through the storm water drain, so the unit shall provide separate drains for spillage & storm water.	Job completed. As directed by TNPCB, Gutter water recovery sump with a capacity of 100KL was constructed and is in use since December, 2019 to recover water from gutter and send it back to CWBD Plant and to avoid water going to lagoon. Later on, all the underground water lines leaks were attended during TAR 2020 (May 2020) and was informed to TNPCB. Also, Steam condensate and steam leakages are	Complied. The unit has provided collection tank for collection of process leakage water leading to old lagoon and send back to cooling water blow down treatment plant collection tank for further treatment.

		<p>being attended as and when it occurs and not connected to storm water drain. Steam condensate and process water lined up to CT basin.</p> <p>Gutters have been constructed inside the plants to be used as storm water drain. Hence, under normal operating conditions no water will be discharged to the ground.</p>	
(v)	The unit must take continuous effort on monitoring the plant and carrying out periodical inspection of the valves, gaskets, and pipelines of the ammonia and urea plant to avoid ammonia leakages in the plant.	Complied.	Complied.
(vi)	The unit shall revamp the plant equipment and re-design the process to abate the pollution problem.	Job In Progress. Requested M/s Haldor Topsoe, Process Licensor to study and recommend schemes to reduce pollution abatements. Upon receipt of Final report, the recommendations will be implemented. Final report is expected in another three months.	Not Complied. It was reported that the unit has requested M/s. Haldor Topsoe, ammonia process licensor to study the status of plant equipments. Expected final report from the licensor within 3 months and it was reported that the recommendations will be carried out in a phased manner.
(vii)	As the unit's NPK fertilizer manufacturing buildings and utilities including pipelines are in dilapidated condition and requires complete revamping.	NPK Manufacturing units A&B are not in use since 2005 and will be demolished in a phased manner.	Not Complied. It was reported that the NPK Manufacturing A&B will be demolished in a phased manner.
(viii)	The unit shall obtain authorization under the provisions of Hazardous & Other Wastes (Management, & Trans boundary Movement) Rules 2016.	Job Completed. Details: MFL has renewed Hazardous Waste Authorization issued by TNPCB on 19.11.2021 valid till March 31, 2026. The authorization No is 21HRC8621294.	Complied. The unit has obtained Hazardous waste authorization from the Board on 19.11.2021 valid upto 31.03.2026.
(ix)	It was informed that validity of HW Authorization expired on 23.11.2014, since then the spent catalyst generated is stored in the unit premises. The unit shall take necessary	Complied.	Complied. The unit has disposed the accumulated spent catalyst of 140T against 166T as authorized.

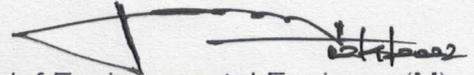
	action for disposal of spent catalyst.		
(x)	The hazardous waste facility should be provided with leak/spill management systems to avoid any accidents that may occur due to spillage.	Complied.	Complied.
(xi)	The spacing between the containers can be increased as per the provision given by CPCB.	Complied.	Complied.
(xii)	Additional shed can be constructed to store the hazardous waste containers and spent catalyst accumulated in the hazardous waste shed so that storage of these wastes in open space can be avoided	Complied.	Complied. The unit has adequate storage capacity of temporary hazardous waste shed for the storage of hazardous wastes.
(xiii)	The waste containers must also be named along with the characteristics of the hazardous waste stored so that the safety protocols can be followed accordingly	Complied.	Complied.

Assessment of Environmental Compensation

It is respectfully submitted that the environmental compensation as per CPCB guidelines has been assessed to the unit for the exceedances of the emission norms for the period from 26.08.2020 to 28.03.2021 for Rs.96,30,000/- (Rupees Ninety six lakhs & thirty thousand only) and Show Cause Notice under section 5 of the Environment (Protection) Act, 1986 as amended has been issued to the unit vide TNPCB Proc. dated 21.12.2021 as to why Environmental Compensation computed should not to be imposed against the unit as per the guidelines issued by the Hon'ble NGT and CPCB for the violations caused by the unit as mentioned therein. The unit's in its reply letter dated 04.01.2022 informed that all the parameters were kept under control through manual records prepared by the third party external MoEF approved agency and it is clear that none of the parameters exceeded of the norms and there is no detrimental impact to the environment, hence requested the TNPCB to kindly implore that the proposed compensation may be dropped.

As the environmental compensation levied to the unit is for non compliances of the directions issued by the Hon'ble NGT(SZ) & TNPCB, the unit shall remit the environmental compensation as computed above to TNPCB immediately.

By considering the above facts, the Hon'ble Tribunal may pass appropriate Order(s)/Directions(s) as deemed fit.



Joint Chief Environmental Engineer (M),
Tamil Nadu Pollution Control Board,
Chennai Zone.

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12/4/22