



B-29016/IPC-I/ 9049

January 29, 2024

To

The Chairperson,
Tamil Nadu Pollution Control Board,
76, Mount Salai,
Guindy, Chennai - 600 032

Sub: Directions Issued under Section 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 and Section 18 (1) (b) of The Air (Prevention and Control of Pollution) Act, 1981, in the matter of Ammonia gas leakage occurred in the pipeline of M/s Coromandel International Ltd., Ennore, Tamil Nadu –reg.

WHEREAS, under section 17 sub-section (1) clause (o) of the Water Act, 1974, and with parallel provision under section 17 sub-section (1) clause (i) of the air (Prevention & control of pollution) Act, 1981, hereinafter referred to as Air Act, 1981, one of the functions of the Tamil Nadu Pollution Control Board (TNPCB) constituted under the Water Act, 1974, is to plan a comprehensive programme for the Prevention ,Control or abatement of Pollution of streams and wells and air pollution in the state and secure the execution thereof; and

WHEREAS, Central Pollution Control Board received a VIP reference dated January 04, 2024 from Hon'ble Member of Parliament, Lok Sabha, Dr. Kalanidhi Veeraswamy forwarded by Hon'ble Minister of Environment, Forest and Climate Change regarding ammonia gas leakage that had occurred in the pipeline of M/s Coromandel International Ltd., Ennore, Tamil Nadu on December 26, 2023; and

WHEREAS, to investigate the issues stated in aforementioned VIP reference, Central Pollution Control Board, Regional Directorate Chennai inspected M/s Coromandel International Ltd., Ennore, Tamil Nadu (the Unit) on January 5, 2024 and made following observations:

1. The Unit is a fertilizer industry having valid consent to operate for manufacturing of Ammonium Phosphate Potash Sulphate and ammonia storage facility.
2. Ammonia leakage incident was happened during the pre-cooling operation of offshore pipelines owned and operated by M/s Coromandel International Ltd., (Fertilizer manufacturing Unit) at Ennore on December 26, 2023.
3. During inspection, the Unit was not operational.

4. Tamil Nadu Pollution Control Board issued direction under section 33A of Water Act, 1974 and Section 31A of Air Act, 1981 on December 27, 2023 thereby suspending the operation of ammonia offshore pipeline activity for pre-cooling and ammonia transfer on December 27, 2023.
5. According to their findings of the technical team constituted by Tamil Nadu Pollution Control Board, the cause for ammonia leak is due to damage in the supply pipeline causing the pressure drop from 3.8 kg/cm² to 0.5kg/cm² within 01minute.
6. The Unit has installed 19 numbers of ammonia sensors near the ammonia storage tank and in fertilizer manufacturing plant. However, there are no sensors at the pipelines or near to pipelines located at sea shore to detect any ammonia leakages.
7. Some of conditions of consent to operate viz. connecting the parameter of exit velocity from the emission stack with the O₂ correction factor with Care Air Centre of Tamil Nadu Pollution Control Board and timely disposal of hazardous wastes are not complied by the Unit.
8. The Unit conducts safety audit of the Ammonium Phosphate Potash Sulphate plant and its allied plants once in a year and submits the report to Directorate of Industrial Safety and Health. The last safety audit report was submitted on February 02, 2023. The Unit also conducts safety audit of pipelines once in a year internally and once in five years under supervision of Indian Registrar of Shipping. The last audit under the supervision of Indian Registrar of Shipping was held on July 23, 2022.

WHEREAS, Rule 10 (4) of The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended) stipulates that after the commencement of the Manufacture, Storage and Import of Hazardous Chemicals (Amendment) Rules, the occupier of both the new and the existing industrial activities shall carry out an independent safety audit of the respective industrial activities with the help of an expert, not associated with such industrial activities ; and

WHEREAS, Rule 10 (5) of The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended) stipulates that the occupier shall forward a copy of the (safety) auditor's report along with his comments to the concerned Authority within 30 days after the completion of such audit ; and

WHEREAS, Rule 10 (6) of The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended) stipulates that the occupier shall update the safety audit report once a year by conducting a fresh safety audit and forward a copy of it with his comments thereon within 30 days to the Concerned Authority ; and

WHEREAS, w.r.t. contravention of the aforementioned rules of The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended) has been observed w.r.t. safety audit of pipeline; and

NOW, THEREFORE, on the basis of observations and recommendations of inspection team and in exercise of the power conferred under 18 (1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 and Section 18 (1) (b) of The Air (Prevention and Control of Pollution) Act, 1981, Tamil Nadu Pollution Control Board is hereby directed to issue following directions to M/s Coromandel International Ltd., Ennore, Tamil Nadu and shall ensure strict compliance of these directions prior to revocation of your aforementioned directions dated December 27, 2023:

1. The Unit shall carry out physical inspection of the pipeline for damage and shall take necessary action regarding its repair. The Unit shall also take necessary precautionary measures to drain any held aqueous ammonia in the pipeline and shall take necessary steps to prevent its release into environment.
2. The Unit shall clear all boulders and debris in the vicinity of ammonia pipelines at the shore to ensure safety of the pipelines.
3. The Unit shall install ammonia sensors in the pipelines at loading & unloading points, to detect any ammonia leakages. The Unit shall also provide ammonia sensors near the offshore pipeline where it crosses the express highway from the shore to the industry.
4. The Unit shall conduct comprehensive safety audit of the industrial plant as well as pipeline. The safety audit should be conducted by the competent agency having authorization / approval to conduct safety audit from the Chief inspector of Factories or the Ministry of Labour and Employment or any Statutory Organization as per extant law.
5. The Unit shall submit report on compliance with respect to the recommendations of the safety audit report to the Chief inspector of Factories / Directorate of Industrial Safety and Health, with intimation to Tamil Nadu Pollution Control Board.
6. The Unit shall update the safety audit report once a year by conducting a fresh safety audit by a competent agency having authorization / approval to conduct safety audit from the Chief inspector of Factories or the Ministry of Labour and Employment or any Statutory Organization as per extant law and forward a copy of it with his comments thereon within 30 days to the concerned Authority in accordance with The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.

7. The Unit shall conduct comprehensive hazard identification and risk assessment from an expert institution to identify the non-compliances and shall take corrective actions for the non-compliances identified.
8. The Unit shall submit emergency plans/Disaster Management Plans to deal with such leakages / accidents.
9. The Unit shall provide Supervisory Control and Data Acquisition (SCADA) and Leak Detection and Repair (LDAR) systems to prevent any major accident / leakage in future.
10. The Unit shall comply with the conditions stipulated in consent to operate and authorization granted under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

The compliance of above direction shall be submitted to this office within 30 days of the receipt of the directions.



(Bharat Kumar Sharma)
Member Secretary

Copy to:

1. The Additional Secretary (CP Division)
Ministry of Environment, Forests and Climate Change
Prithvi Wing, 5th Floor,
Indira Paryavaran Bhawan, Aliganj,
Jor Bagh Road, New Delhi – 110003
2. The Regional Director
Central Pollution Control Board
Second Floor, No.77-A,
South Avenue Road, Ambattur Industrial Estate,
Ambattur Taluk, Thiruvallur District,
Chennai- 600 058, Taminadu
3. The Incharge, IT, CPCB
4. DH IPC-VI



(Bharat Kumar Sharma)