



No. SEIAA/GUJ/EC/5(e)/ 131 /2013

Date: 15 JUL 2013  
Time Limit

Sub: Environment Clearance for the - M/s. Gujarat State Fertilizers & Chemicals Limited for setting up of new Nylon-6 Plant within the existing complex at P.O. Fertilizer Nagar, Vadodara..... in Category 5 (e) of Schedule annexed with EIA Notification dated 14/9/2006.

Dear Sir,

This has reference to your application along with Form-I vide letter dated 05/12/2011, EIA Report vide their letter dated 09/10/2012, submitted to the SEAC, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006.

The proposal is for Environmental Clearance for - M/s. Gujarat State Fertilizers & Chemicals Limited for setting up of new Nylon-6 Plant within the existing complex at P.O. Fertilizer Nagar, Vadodara. M/s. GSFC is proposing to set up 45 MTPD (16,425 MTPY) of Engineering Plastic Grade Nylon-6 Chips Plant within the existing complex. The proposal of 45 MTPD (16,425 MTPY) of Engineering Plastic Grade Nylon-6 Chips project is an expansion of the existing Nylon-6 Plant having 24 MTPD (8,000 MTPY) capacity. The proposed expansion falls in the project activity 5(e) as per the schedule of the EIA Notification-2006.

The proposal falls under project / activity no. 5(e) in the Schedule of the EIA Notification, 2006. As the unit is located in to the notified industrial estate of GIDC, Nandesari, it falls under category "B" of the schedule. Since the unit is located in the notified industrial area, public consultation is not required as per paragraph 7(i) III (i) (b) of the Environment Impact Assessment Notification-2006.

The SEAC, Gujarat had recommended to the SEIAA, Gujarat, to grant the Environment Clearance to this project for the above-mentioned project. The proposal was considered by SEIAA, Gujarat in its meeting held on 29.06.2013 at Gandhinagar. Since the public consultation is not required for the project, the SEIAA hereby accords Environmental Clearance to above project under the provisions of EIA Notification dated 14<sup>th</sup> September, 2006 subject to the compliance of the following conditions.

**A. SPECIFIC CONDITIONS:**

**A.1 WATER:**

1. The fresh water requirement for the 45 MTPD Nylon-6 Plant shall not exceed 110 KL/day and it shall be met through existing French wells in Mahi river. Metering of water shall be done and records of monthly water consumption shall be maintained.
2. Domestic wastewater shall be treated in the existing STP facility and utilized for irrigation and plantation within the GSFC complex.
3. Proposed Nylon 6 Plant shall be integrated with the latest Lactam Recovery System and recovered Lactam from it shall be recycled to the Reactor whereas recovered water shall be recycled to the Extraction Section.
4. Industrial effluent generation from the proposed 45 MTPD Nylon-6 Plant shall not exceed 50 KL/day, including 34 KL/day of process plant effluent and 16 KL/day of cooling tower blow-down water.
5. The process plant effluent to the tune of 34 KL/day shall be treated in the existing ETP (either in ETP-1 for Caprolactam-I & existing Nylon-6 Chips Plants or in ETP-2 for Caprolactam-II Plant).
6. The company shall upgrade its ETPs so as to make it adequate to treat increased quantum of industrial effluent from proposed Nylon 6 Plant. The ETP shall be operated regularly and efficiently to achieve the GPCB norms at the final outlet.
7. Cooling tower blow-down water to the tune of 16 KL/day shall be collected directly into final Lean Discharge Ponds along with treated effluent from the ETPs.
8. The treated industrial effluent from Lean Discharge Ponds conforming to the GPCB norms shall be discharged into the common effluent conveyance channel of VECL (Formerly known as ECPL) for its ultimate disposal in estuary of river Mahi.
9. The unit shall provide metering facility at inlet and outlet of the ETPs and maintain records for the same.
10. The unit shall provide online monitoring system for monitoring of pH, TOC & flow of treated effluent with an arrangement to reflect the monitored data on the company's server, which can be accessed by the GPCB on real time basis.

11. A proper logbook of the ETP operation, effluent discharge quality and quantity, power consumption, chemical consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.
12. The unit shall join and participate financially and technically for any common environmental facility / infrastructure as and when the same is taken up either by the GIDC or GPCB or any such authority created for this purpose by the Govt. / GIDC.

#### **A.2 AIR:**

13. Off gas streams from various emission points from the continuous Nylon 6 processes shall be scrubbed in the washing tower before releasing it in the atmosphere.
14. The Off-gas Treatment Unit (OTU) shall be operated efficiently and effectively to achieve the norms prescribed by the GPCB at stack outlet.
15. There shall be no additional flue gas stack and steam for the proposed Nylon-6 plant shall be sourced from the existing steam boilers using natural gas as a fuel.
16. All the vessels used in the manufacturing process shall be close to reduce the fugitive emission. Adequate ventilation system shall be provided in work areas.
17. The fugitive emission in the work place environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health).
18. Regular monitoring of ground level concentrations of SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> shall be carried out in the impact zone and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the GPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional control measures shall be taken immediately. The location of the stations and frequency of monitoring shall be decided in consultation with the GPCB.

#### **A.3 HAZARDOUS / SOLID WASTES**

19. The company must strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008, as may be amended from time to time. Authorization from the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes.
20. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.
21. Plastic, Paper & Cotton Bags from Caprolactam recovery, Lactum Bag discharge, Nylon6 (Granulation Waste), Fibre Fleece with Nylon6 Particles, Nylon 6 dust, Low Quantities of Nylon6, Bio Sludge, Spent Oil and Empty Drums, etc. shall be disposed off in accordance with the Authorization from the GPCB.

#### **A.4 SAFETY:**

22. The project management shall strictly comply with the provisions made in the Factories Act, 1948 as well as Manufacture, Storage and Impact of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals.
23. Fire hydrant system shall be installed as per the TCA/NFPA norms for each plant and building.
24. All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of flammable and combustible materials.
25. Proper ventilation shall be provided in the work areas.
26. Storage and use of hazardous materials shall be minimized to the extent possible and all necessary precautions shall be taken to mitigate the risk generated out of it.
27. Hazardous materials storage shall be at an isolated designated location, bund/dyke walls shall be provided for storage tanks for Hazardous Chemicals.
28. All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Close handling system for chemicals shall be provided.
29. Personal Protective Equipment shall be provided to workers and its usage shall be ensured and supervised.
30. First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity at all the times.
31. Necessary tie up with the nearby doctor qualified for occupational health shall be made to ensure that the medical treatment is given within the shortest possible time in case of any adverse condition.
32. Training shall be given to all workers on safety and health aspects of handling chemicals.
33. Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act and Rules.
34. Transportation of Hazardous Chemicals shall be as per the provisions of the Motor Vehicle Act & Rules.
35. All transporting routes within the factory premise shall have paved roads to minimize splashes and spillages.

#### **A.5 NOISE:**

36. The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering control like acoustic insulations, hoods, silencers, enclosures etc. on all source of noise generation. The ambient noise level shall conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

#### **A.6 CLEANER PRODUCTION AND WASTE MINIMISATION:**

37. The unit shall undertake the Cleaner Production Assessment study through a reputed institute / organization and shall form a CP team in the company. The recommendations thereof along with the compliance shall be furnished to the GPCB.
38. The unit shall also undertake following waste minimization measures:
- Metering and control of quantities of active ingredients to minimize waste.
  - Use of automated and enclosed filling to minimize spillage.
  - Reuse of by-products / materials recovered from the process as raw materials or raw materials substitutes in other process.
  - Venting equipment through vapour recovery system.
  - Use of high pressure hoses for equipment cleaning to reduce wastewater generation.
  - Dry cleaning / mopping of floor instead of floor washing
  - Regular preventive maintenance to avoid leakage, spillage etc.

#### **A.7 GREEN BELT AND OTHER PLANTATION:**

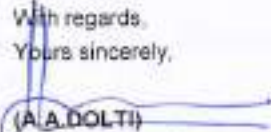
39. The company shall develop and maintain green belt within premises as per the CPCB guidelines. In addition to this, the company shall also take up adequate plantation on road sides and other open areas in consultation with the GPCB and submit an action plan of plantation for next three years to the GPCB.

#### **B. OTHER CONDITIONS:**

40. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
41. The company shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EIA Report of the project.
42. A separate Environment Management Cell equipped with full fledged laboratory facilities and qualified personnel shall be set up to carry out the Environment Management and Monitoring functions and a separate budget shall be allocated for this purpose.
43. The funds earmarked for environment protection measures shall be maintained in a separate account and there shall not be any diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards shall be reported.
44. The company shall carry out socio-economic developmental / community welfare activities in consultation with the District Development Officer / District Collector.
45. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
46. Leakages from the pipes, pumps etc. shall be minimal and if occurs, shall be arrested promptly.
47. During material transfer, spillages shall be avoided and gulland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
48. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.
49. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.
50. The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
51. The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.
52. It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.
53. The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
54. The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
55. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.

56. The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
57. This environmental clearance is valid for five years from the date of issue.
58. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

With regards,  
Yours sincerely,

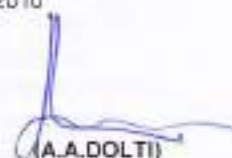
  
(A.A.DOLTI)  
Member Secretary

*Issued to:*

**Mr. J. S. Soni, Additional G.M. – Utility & SHE,  
M/s. Gujarat State Fertilizers & Chemicals Ltd.  
P.O. Fertilizer Nagar,  
Vadodara – 391 750.**

*Copy to:-*

1. The Secretary, SEAC, C/O. G.P.C.B. Gandhinagar - 382010.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD -cum-Office Complex, East Arjun Nagar, New Delhi-110032
3. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office (WZ), E-5, Anera Colony, Link Road-3, Bhopal-462016, MP
4. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003
5. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10 A, Gandhinagar-382010
6. Select File

  
(A.A.DOLTI)  
Member Secretary