

Dr. GAURAV DAHIYA, IAS
MEMBER SECRETARY
SEIAA (GUJARAT)



STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT
AUTHORITY
GUJARAT

Government of Gujarat

No. SEIAA/GUJ/EC/5(f)/417/2016

Date: 28 JUN 2016

By R P A D

Time Limit

Sub: Environment Clearance to M/s. Bhagwati Industries for setting up of the proposed expansion of manufacturing of Synthetic organic chemicals at Plot No: 3522 to 3524 & 3531, Phase-IV, GIDC Chhatral, Ta: Kalol, Dist: Gandhinagar In Category 5(f) of Schedule annexed with EIA Notification dated 14/09/2006.

Dear Sir,

This has reference to your application along with Form-I dated 18/04/2013 submitted to SEIAA, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006 and additional information / documents submitted vide letter dated 07/04/2015, 05/10/2015 and 05/04/2016 to the SEAC.

The proposal is for Environmental Clearance to M/s. Bhagwati Industries for setting up of the proposed expansion of manufacturing of Synthetic organic chemicals at Plot No: 3522 to 3524 & 3531, Phase-IV, GIDC Chhatral, Ta: Kalol, Dist: Gandhinagar. It is an existing unit for manufacturing following products, which falls in the category - 5(f) of the schedule of the EIA Notification-2006:

Sr. no.	Name of The Products	Capacity MT/ Month
Existing Products		
1	Ethyl Chloride	100.0
2	Tri chloroAcetaldehyde (Chloral)	200.0
3	Di Ethyl Meta Amino Phenol	40.0
4	Chloroform	70.0
5	Tri ChloroAcetaldehyde Hydrate	50.0
By Products		
1	Caustic Soda	310.0
2	Salt	310.0
3	NaOCl	70.0
In Organic Products		
1	Ferric Alum	500.0
2	Aluminum Sulfate	200.0
3	Copper Sulfate	200.0
4	DCP	200.0
5	Ferrous Sulfate	200.0
6	Potassium Sulfite	50.0
7	Potassium Chloride	100.0
8	Potassium Sulfate	50.0
9	Sulfur Dust	1000.0
10	Sulfur Granules	800.0
11	Super Phosphate	200.0
12	zinc Sulphate	200.0
13	Mix Fertilizer	200.0
14	Pesticides Formulations	500.0
15	Poly Aluminum Chloride	500.0
16	Calcium Chloride	400.0
Proposed Products		
1	Basic Magenta	250.0
2	Para rosa aniline	250.0
3	Di -methyl aniline	1500.0

The project activity is covered in 5(f) and is of 'B' Category. Since, the proposed project is categorized as B2 Category, public consultation is not required as per paragraph 7(ii) (III) (i) (e) of the Environment Impact Assessment Notification-2006.

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State Level Environment
Impact Assessment Authority
(SEIAA/GUJARAT)
Gujarat Pollution Control Board,
"Paryavaran Bhawan"
Sector-10-A, Gandhinagar-382010

Office: Gujarat Pollution Control Board, "Paryavaran Bhawan" Sector-10 A, Gandhinagar-382010

Phone No.:- (079) 232-32152, 232-41514 Fax No.:- (079) 232-22784

E-mail: msseiaa01@gmail.com Website: www.seiaa.gujarat.gov.in

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The SEAC, Gujarat vide their letter dated 13/06/2016 had recommended to the SEIAA, Gujarat, to grant the Environment Clearance for the above-mentioned project based on its meeting held on 13/04/2016. The proposal was considered by SEIAA, Gujarat in its meeting held on 18/06/2016 at Gandhinagar. After careful consideration, the SEIAA hereby accords Environmental Clearance to above project under the provisions of EIA Notification dated 14th September, 2006 subject to the compliance of the following conditions.

A. CONDITIONS :

A. 1 SPECIFIC CONDITION :

1. Entire quantity of Wastes (1) HCl – 30-33 % [500 MT/Month], (2) H₂SO₄ (80-85%) [150 MT/Month] shall be disposed off in accordance to the Hazardous and other Wastes (Management and Transboundary Movement) Rules.
2. The unit shall submit the list of authorized end users of above mentioned hazardous wastes along with MoU signed with them at least two months in advance prior to commencement of production. In absence of potential buyers of these items, the unit shall restrict the production of respective item.

A. 2 WATER :

3. Additional fresh water requirement for the project shall not exceed 13.5 KL/day (0.5 KL for Cooling tower & 13 KL for scrubbing system) and it will be sourced from GIDC water supply. Unit shall obtain necessary permission for withdrawal of fresh water from the concern Authority.
4. The water meter shall be installed and records of daily and monthly water consumption shall be maintained. No ground water shall be tapped for the project requirements in any case.
5. There shall be no generation of industrial waste water from the proposed project.
6. Domestic wastewater generation shall not exceed existing quantity (1.5 KL/Day) and it shall be disposed off through septic tank - soak pit.
7. Proper logbook for waste water generation and reuse of waste water shall be maintained and furnished to the GPCB from time to time.
8. 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 GPCB, GIDC or any such authority created for this purpose by the Government / Association.

A. 3 AIR :

9. PNG to the tune of 14 SCM/hr shall be used for existing Boiler (0.8 TPH) and proposed Boiler (0.6 TPH).
10. HSD to the tune of 3.5 Lit./day shall be used for one DG set (Cap. 70 KVA each).
11. Flue gas emission from Boilers and DG set shall conform to the standards prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards.
12. A set of water scrubbers (4 no.s in series) followed by Alkali scrubbers (2 no.s in series) shall be provided as APCM with 18 no.s of Chlorination vessels, 14 no.s of treatment vessels & 4 no.s of distillation columns for control HCl and CL₂.
13. Adequate APCM shall be provided and operated efficiently & effectively to achieve the norms prescribed by the GPCB/CPCB/MoEF&CC at vent / stack outlets.
14. Online monitoring system shall be installed to monitor the gaseous emission of HCL & CL₂ from the process gas vent. An arrangement shall also be done for reflecting the online monitoring results on the company's server, which can be assessable by the GPCB on real time basis.
15. The fugitive emission in the work zone 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). Following indicative guidelines shall also be followed to reduce the fugitive emission.
 - All transfer points shall be fully enclosed.
 - Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
 - Air borne dust shall be controlled with water sprinklers at suitable locations in the plant.
 - A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission.
16. All the vessels used in the manufacturing process shall be closed to reduce the fugitive emission.
17. Measures shall be taken to reduce the process vapors emissions as far as possible. Use of toxic solvents shall be minimum. All venting equipment shall have vapour recovery system.
18. All the vessels used in the manufacturing process shall be close to reduce the fugitive emission.
19. The fugitive emission in the work zone environment shall be monitored. The emission shall strictly conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health).
20. Airborne dust at all transfers operations/ points shall be controlled either by spraying water or providing enclosures.
21. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.
22. For control of fugitive emission, VOCs, following steps shall be followed :
 - a. Closed handling and charging system shall be provided for chemicals.
 - b. Reflux condenser shall be provided over Reactors / Vessels.
 - c. Pumps shall be provided with mechanical seals to prevent leakages.
 - d. Leak Detection and Repair (LDAR) programme shall be implemented to control VOC emissions.

A. 4 SOLID / HAZARDOUS WASTE:

23. The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016, as may be amended from time to time. Authorization of the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes.
24. 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.
25. Wet scrubber residue & Filtration of process waste cloth shall be disposed off at the Common TSDF site.
26. Distillation residue shall be sent to CHWIF.
27. Discarded barrels / containers / bags / liners shall be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination.
28. Used oil shall be sold only to the registered recyclers.
29. The unit shall obtain necessary permission from the nearby TSDF site and CHWIF.
30. Vehicles used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 1988, and rules made there under.
31. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.

A. 5 SAFETY:

32. The company shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended.
33. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989, as amended in 2000 and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
34. Storage of flammable chemicals shall be sufficiently away from the production area.
35. Sufficient no. of fire extinguishers shall be provided near the plant and storage area.
36. All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.
37. All the toxic/hazardous chemicals shall be stored in optimum quantity and all necessary permissions in this regard shall be obtained before commencing the expansion activities.
38. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
39. Only flame proof electrical fittings shall be provided in the plant premises.
40. Storage of hazardous chemicals shall be minimized and it shall be in multiple small capacity tanks / containers instead of one single large capacity tank / containers.
41. All the storage tanks shall be fitted with appropriate controls to avoid any leakages. Bund/dyke walls shall be provided for storage tanks for Hazardous Chemicals.
42. Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.
43. Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency.
44. Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.
45. First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
46. Training shall be imparted to all the workers on safety and health aspects of chemicals handling.
47. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
48. Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
49. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.
50. Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.

A. 6 NOISE:

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

A. 7 CLEANER PRODUCTION AND WASTE MINIMISATION:

52. 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

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GPCB.

53. The company shall undertake various waste minimization measures including :

- a) Metering and control of quantities of active ingredients to minimize waste.
- b) Reuse of by-products from the process as raw materials or as raw materials substitutes.
- c) Use of automated and close filling to minimize spillages.
- d) Use of close feed system into batch reactors.
- e) Venting equipment through vapour recovery system.
- f) Use of high pressure hoses for cleaning to reduce wastewater generation.
- g) Recycling of washes to subsequent batches.
- h) Recycling of steam condensate
- i) Sweeping / mopping of floor instead of floor washing to avoid effluent generation.
- j) Regular preventive maintenance for avoiding leakage, spillage etc.

A. 8 GREEN BELT AND OTHER PLANTATION:

54. The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on road sides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.

B. OTHER CONDITIONS:

55. 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.
56. During material transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
57. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.
58. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment Study report as well as proposed by project proponent.
59. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
60. Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly.
61. 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.
62. 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 and Other Wastes (Management and Transboundary Movement) Rules 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
63. The project proponent shall comply all the conditions mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit.
64. The project management shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk Assessment study report as well as proposed by project proponent.
65. 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.
66. 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.
67. 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.
68. 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.
69. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act,

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(SEIAA - Gujarat)

Gujarat Pollution Control Board

"Paryavaran Bhavan"

Sector-10-A, Gandhinagar-10

The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.

Office : Gujarat Pollution Control Board, "Paryavaran Bhavan" Sector-10 A, Gandhinagar-382010

Phone No.:- (079) 232-32152, 232-41514 Fax No.:- (079) 232-22784

E-mail : msseiaagi@gmail.com, Website:- www.seiaa.gujarat.gov.in

71. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
72. 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.
73. 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.
74. This environmental clearance is valid for seven years from the date of issue.
75. 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


(Dr. GAURAV DAHIYA, IAS)
Member Secretary

Issued to:

**Mr. Jigneshbhai Joshi,
M/s: Bhagwati Industries,
14, Shimla Avenue,
Nr. Navrodji Hall,
Rajasthan Hospital Road,
Shahibaug, Ahmedabad**

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, Arera 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
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(Dr. GAURAV DAHIYA, IAS)
Member Secretary

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(SEIAA - Gujarat)
Gujarat Pollution Control Board,
"Paryavaran Bhawan"
Sector-10-A, Gandhinagar-10**