

S. J. PANDIT, IFS (Retd.)
MEMBER SECRETARY
SEIAA (GUJARAT)



STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT
AUTHORITY
GUJARAT

Government of Gujarat

No. SEIAA/GUJ/EC/5(f)/1294/2021

Date: 2 JUL 2021 By R P A D
Time Limit

Sub: Environment Clearance to M/s. Alkyl Amines Chemicals Limited for setting up expansion of manufacturing plant of 'Synthetic Organic Chemicals' at Plot No. D2/CH/149/1/2 & D2/CH/149/2, GIDC Dahej, Phase II, Vagra, Bharuch. In Category 5(f) of Schedule annexed with EIA Notification dated 14/09/2006.

Ref: Your Proposal No. SIA/GJ/IND2/54904/2020.

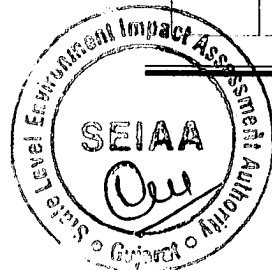
Dear Sir,

This has reference to your application along with EIA report dated 18/08/2020 submitted to SEIAA, seeking Environmental Clearance under Environment Impact Assessment Notification, 2006.

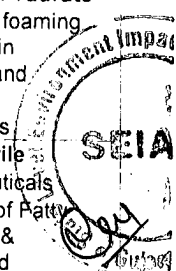
The proposal is for Environmental Clearance to M/s. Alkyl Amines Chemicals Limited for setting up expansion of manufacturing plant of 'Synthetic Organic Chemicals' at Plot No. D2/CH/149/1/2 & D2/CH/149/2, GIDC Dahej, Phase II, Vagra, Bharuch. It is an existing unit for manufacturing following products, which falls in the category - 5(f) of the schedule of the EIA Notification-2006:

S. No.	Product Name	CAS No.	Quantity (MT/Annum)			End-use of Product
			Existing	Proposed	Total	
1	Methylamines (Mono, Di & Tri)	74-89-5, 124-40-3, 75-50-3	49500	-	49500	<ul style="list-style-type: none"> Dyes Textile Ethoxylates Rayon Industry (Textile Strength) Pharmaceutical Rubber Chemicals Solvent Water Treatment Miscellaneous Emulsifying Agent Surfactant
2	Dimethyl Amino Propyl Amine (DMAPA)	109-55-7	4950	-4125	825	<ul style="list-style-type: none"> Surfactants Dyes Adhesives & Coating Fuel Additives Lube Additives Flocculants
3	Existing Product 1) Tertiaryamine OR Proposed Product 1) Hexa Methylene Diamine (HMDA)	8013-59-0 124-09-4	4950	-4125	825	For Tertiaryamine <ul style="list-style-type: none"> Surfactants Neutralizers/acid quenchers For HMDA <ul style="list-style-type: none"> Manufacture of polymers e.g. Nylon 66
4	Existing Product 1) N-Methyl Pyrrolidone (NMP) 2) N-Ethyl Pyrrolidone (NEP) Proposed Products 1) 2 Pyrrolidone 2) N-Vinyl Pyrrolidone 3) N-OctylPyrrolidone 4) Methyl Taurate	872-50-4 2687-91-4 88-12-0 2687-94-7 4316-74-9	9900	-	9900	For N-Methyl Pyrrolidone (NMP) <ul style="list-style-type: none"> Solvent in Petrochemical and Plastic Industry Pharmaceutical industry, N-methyl-2-pyrrolidone is used in the Formulation for drugs by both oral and transdermal delivery routes

Office : Gujarat Pollution Control Board, "Paryavaran Bhavan" Sector-10 A, Gandhinagar-382010 Page 1 of 11
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						<p>For N- Ethyl Pyrrolidone (NEP)</p> <ul style="list-style-type: none"> Solvent in Petrochemical/ Coating/ Pharma industry <p>For 2-Pyrrolidone</p> <ul style="list-style-type: none"> As raw material in the production of Pharma products e.g. cotinine, doxapram etc. <p>For N-Vinyl Pyrrolidone</p> <ul style="list-style-type: none"> As co-polymer UV inks , adhesive and precursor to manufacture of Polyvinyl Pyrrolidone (PVP) <p>For N-octylPyrrolidone</p> <ul style="list-style-type: none"> Intermediate in the production of electronics and Industrial chemicals <p>For Methyl Taurate</p> <ul style="list-style-type: none"> Secondary foaming agent in skin cleansers and shampoo formulations.
5	<p>Existing Product 1) Acetonitrile OR Proposed Products 2) Adiponitrile and 3) Cyclopentanone</p>	<p>75-05-8 111-69-3 120-92-3</p>	16500	-	16500	<p>For Acetonitrile</p> <ul style="list-style-type: none"> Pharmaceuticals Extraction of Fatty Acids, Oils & Unsaturated Hydrocarbons such as butadiene Chemical intermediate and solvent for perfumes, pharmaceuticals High pressure liquid chromatographic analysis Catalyst & component of transition-metal complex catalysts Solvent for chemical intermediate in Biochemistry (for synthesis of Vitamin A, Vitamin B1 and Amino Acids) Solvents for spinning, casting & extractive distillation based on its selective miscibility with organic compound Rubber Chemicals <p>For Adiponitrile</p> <ul style="list-style-type: none"> Important Raw material for HMDA <p>For Cyclopentanone</p> <ul style="list-style-type: none"> Key raw material for perfumery industries
6	Sodium acetate	6131-90-4	6105	-	6105	<ul style="list-style-type: none"> Common chemicals



7	Dimethyl Acetamide (DMAC)	127-19-5	8250	-	8250	used in industries like textile, food & pharmaceutical • Solvent in Pharmaceutical • Spandex in textile
8	Amine Hydrochloride (Mono, Di & Tri Methylamines)	593-51-1 506-59-2 593-81-7	57750	-	57750	• Intermediate in pharmaceutical
9	Choline Chloride 1) Choline chloride 60% on Corncob. 2) Choline chloride 75% aqueous solution 3) Choline chloride 60% aqueous solution 4) Choline chloride powder.	67-48-1	-	30000	30000	Choline Chloride as 60% on Corncob. Used as Poultry/aquaculture feed.
10	Alkanolamines 1) Monomethyl Ethanolamine 2) Methyl Diethanolamine 3) Poly (Methyl) Ethanolamines 4) Mono Ethanolamine 5) Diethanolamine 6) Triethanolamine 7) Ethyl Ethanolamine 8) Ethyl Diethanolamine 9) Poly (Ethyl) Ethanolamines 10) Diethyl Ethanolamine 11) Dimethyl Ethanolamine 12) Dibutyl Ethanolamine 13) Diisopropyl Ethanolamine	109-83-1 105-59-9 NA 141-43-5 111-42-2 102-71-6 110-73-6 139-87-7 NA 100-37-7 108-01-0 102-81-8 96-80-0	-	13200	13200	Monoethanolamine- Intermediate in the manufacture of antihistaminic agent. Methyl diethanolamine As smoothening agent in chemicals, oil refinery, syngas production Poly(methyl) Ethanolamine As cutting fluid, in production of corrosion inhibitors. Monoethanolamine As feed-stock in production of detergents Diethanolamine As surfactant. Triethanolamine In manufacture of surfactants and emulsifiers. Ethyl ethanolamine As raw material in Pharma Industry. Ethyl Diethanolamine In Pharmaceuticals and Coating Industry. Poly(Ethyl) ethanolamine As cement grinding aid Diethyl ethanolamine Intermediate in the manufacture of procaine Dimethyl Ethanolamine As corrosion controller in boiler feed water condensate return lines Dibutyl



						Ethanolamine As a fuel additive and as a neutralizing agent in thermally cured coatings Di-isopropyl ethanolamine Precursor in the production of various chemicals.
11	Co-Gen Plant		-	1500 KW	1500 KW	
	Total		1,57,905	34,950	1,92,855	

The project activity is covered in 5(f) and is of 'B' Category. Since, the proposed project is located in 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 vide their letter dated **25/06/2021** had recommended to the SEIAA, Gujarat, to grant the Environment Clearance for the above-mentioned project based on its meeting held on **24/05/2021**. The proposal was considered by SEIAA, Gujarat in its meeting held on **25/06/2021** 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.1SPECIFIC CONDITION :

1. Unit shall install CEMS [**Continuous Emission Monitoring System**] in line to CPCB directions to all SPCB vide letter no. B-29016/04/06PCI-1/5401 dated 05/02/2014 for effluent discharge and air emission as per pollutants discharge/emission from respective project and an arrangement shall also be done for reflecting the online monitoring results on the company's server which can be assessable by the GPCB/CPCB on real time basis. [**For Small/Large/Medium (Red Category) & Whichever (any) emission & Effluent discharge is applicable**].
2. All measures shall be taken to prevent soil and ground water contamination.
3. The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 (E) dated 16th November, 2009 shall be complied with.
4. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G. S. R. 608 (E) dated 21/07/2010 and amended from time to time shall be followed.
5. Unit shall have to adhere to the prevailing area specific policies of GPCB with respect to the discharge of pollutants, and shall carry out the project development in accordance & consistence with the same.
6. The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority.
7. The PP shall develop green belt [31454.91 Sq. m (22.30%) within premises + 35622 Sq m (26%)= Total 67076 Sq m i.e. 48.30 % of the total plot area] as committed before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of operation phase in consultation with GPCB.
8. **Safety & Health:**
 - a) PP shall obtain PESO permission for the storage and handling of hazardous chemicals.
 - b) PP shall provide Occupational Health Centre (OHC) as per the provisions under the Gujarat Factories Rule 68-U.
 - c) PP shall obtain fire safety certificate / Fire No-Objection certificate (NOC) from the concern authority as per the prevailing Rules / Gujarat Fire Prevention and Life Safety Measures Act, 2016.
 - d) Unit shall adopt functional operations/process automation system including emergency response to eliminate risk associated with the hazardous processes.
 - e) PP shall carry out mock drill within the premises as per the prevailing guidelines of safety and display proper evacuation plan in the manufacturing area in case of any emergency or accident.
 - f) PP shall install adequate fire hydrant system with foam trolley attachment within premises and separate storage of water for the same shall be ensured by PP.
 - g) PP shall take all the necessary steps for control of storage hazards within premises ensuring incompatibility of storage raw material and ensure the storage keeping safe distance as per the prevailing guidelines of the concerned authority.
 - h) PP shall take all the necessary steps for human safety within premises to ensure that no any harm is caused to any worker/employee or labor within premises.
 - i) Flame proof electrical fittings shall be provided in the plant premises, wherever applicable.
 - j) Unit shall never store drum/barrels/carboys of incompatible material/chemical together.



k) Unit shall provide effective Isolation for Process area and storage of hazardous chemicals.

A. 2 WATER :

9. Total water requirement for the project shall not exceed 1583.50 KLD. Unit shall reuse 91.50 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 1492 KLD and it shall be met through GIDC water supply only. Prior permission from concerned authority shall be obtained from concerned authority for withdrawal of water.
10. The industrial effluent generation from the project shall not exceed 588KLD.
11. 588 KLD total industrial effluent shall be treated in ETP consists of primary, secondary & tertiary treatment units and shall be sent to GIDC drainage for deep sea disposal.
12. Treated waste water shall be sent to GIDC drainage only after complying with the inlet norms of common facilities prescribed by GPCB to ensure no adverse impact on Human Health and Environment.
13. Domestic wastewater generation shall not exceed 20 KL/day for proposed project and it shall be treated in STP. It shall not be disposed off through soak pit/ septic tank. Treated sewage shall be utilized for gardening and plantation purpose within premises after achieving on-land discharge norms prescribed by the GPCB.
14. During monsoon season when treated sewage may not be required for the plantation / Gardening / Green belt purpose, it shall be stored within premises. There shall be no discharge of waste water outside the premises in any case.
15. Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during rainy days.
16. The unit shall provide metering facility at the inlet and outlet of ETP& STP and maintain records for the same.
17. Proper logbooks of ETP& STP; recycle/ reuse of treated/ untreated effluent; chemical consumption in effluent treatment; quantity & quality of treated effluent; power consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.

A.3AIR:

18. Unit shall not exceed fuel consumption for boilers, TFHs and D G Sets as mentioned below:

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler-1 (30 MT/Hr)	70	Coal	5450 kg/Hr	SOx NOx PM	ESP + Venturi Scrubber
2	Boiler -2 (30 MT/Hr)	70	Coal	5450 kg/Hr		ESP + Venturi Scrubber
3	Thermic Fluid Heater -1 (20 Lacs Kcal / Hr)	37	LDO	230 kg/hr	SOx NOx PM	Adequate Stack Height
4	Thermic Fluid Heater -2 (20 Lacs Kcal / Hr)	37	LDO	230 kg/hr		Adequate Stack Height
5	D. G. Set-1 (1000 KVA)	16	HSD	208 Ltr/Hr		Adequate Stack Height
6	D. G. Set-2 (1000 KVA)	16	HSD	208 Ltr/Hr		Adequate Stack Height

19. Unit shall provide adequate APCM with flue gas generation sources as mentioned above:

20. Unit shall provide adequate APCM with process gas generation sources as mentioned below:

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Storage tank Scrubber	Ammonia, Total Amines	11	Water scrubber
2	Methylamines plant Scrubber	Ammonia, Total Amines	15	Water scrubber
3	DMAPA/ Tertiaryamines plant Scrubber	Ammonia	15	Water Scrubber
4	Acetonitrile Plant Scrubber	Ammonia	15	Water Scrubber
5	Dimethylacetate Plant Scrubber	Amines	15	Water Scrubber
6	Choline chloride Plant Scrubber	Amines	15	Water Scrubber
7	Alkanolamines Plant Scrubber	Ammonia, Amines	15	Water Scrubber
8	PSV Absorber	Ammonia, Amines	15	Water Scrubber
9	HCl Storage Tank Scrubber	Hydrochloric Acid fumes	15	Water Scrubber
10	HCl Day Tank Scrubber	Hydrochloric Acid fumes	15	Water Scrubber
11	PSV Absorber-Acetonitrile plant	Ammonia, Amines	20	Water Scrubber

12	Acetonitrile Plant Scrubber	Ammonia, Amines	20	Water Seal Pot
13	Acetic Acid scrubber – Storage tank	Acetic Acid	11	Water Scrubber

21. 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.

- 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.

22. Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air.

23. Regular monitoring of ground level concentration of PM10, PM2.5, SO2, NOx, NH3, amines, total amines, HCl, acetic acid and VOCs 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.4 SOLID / HAZARDOUS WASTE:

24. All the hazardous/ solid waste management shall be taken care as mentioned below:

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Annum)			Management of HW
				Existing	Proposed	Total	
1	Spent Carbon	ETP Carbon bed	36.2	2	1	3	Collection Storage and disposal for land filling
2	Distillation Residue	From DMAPA, Tertiaryamine, NMP, NEP, Acetonitrile, Sodium Acetate, DMAC, Alkanolamines, 2Pyrrolidone, N-Vinylpyrrolidone, N-Octylpyrrolidone & Methyl Taurate plant	20.3	2157	655	2812	Collection, Storage and disposal for incineration to CHWIF
3	Spent Organic Solvent	From Acetonitrile + Sodium Acetate plants	20.2	760	0	760	Collection Storage and disposal by sell out to authorized users having authorization with valid CCA and Rule 9 permission
4	Used / spent oil	Various process plants	5.1	5	1	6	Collection, Storage, reuse in plant and machinery as lubricant or sell to Authorized refiners/Recycler
5	Discarded containers/ barrels/ liners	Various process plants	33.1	100	20	120	Collection, Storage, reuse in plant or sell to Authorized Recycler
6	ETP Sludge	ETP	35.3	50	20	70	Collection Storage and

7	Spent Catalyst	3.3 MT from production of Tertiary amine/HMDA 3.3 MT from production of DMAPA	28.2	6.6	0	6.6	disposal for land filling Collection Storage and disposal by sell out to authorized users having authorization with valid CCA and Rule 9 permission
8	Spent Catalyst	From production of Methylamine plant	28.2	2.4 MT (7 MT in 3-4 years when reactor is dumped)	0	2.4 MT (7 MT in 3-4 years when reactor is dumped)	Collection Storage and disposal for land filling
9	Spent Catalyst	From Acetonitrile and Sodium Acetate plant / Adiponitrile and Cyclopentanone plant	28.2	16.83	0	16.83	Collection Storage and disposal for land filling
10	Wastes/Residues containing Oil	Various process plants	5.2	0	2	2	Collection, Storage and disposal for incineration to CHWIF
11	Spent resin from water treatment plant	Water treatment plant	35.2	0	10	10	Collection, Storage and disposal for incineration to CHWIF
12	Exhaust Air or Gas cleaning Residue	Lime Scrubber attached to boiler	35.1	0	5000	5000	Collection Storage and disposal for land filling at TSDF

25. Authorized end-users shall have permissions from the concerned authorities under the Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

26. Unit shall explore the possibilities for environment friendly methods like co-processing of hazardous waste for disposal of Incinerable & land fillable wastes before sending to CHWIF & TSDF sites respectively.

27. The unit shall submit the list of authorized end users of hazardous wastes along with MoU signed with them at least two months in advance prior to the commencement of production. In the absence of potential buyers of these items, the unit shall restrict the production of the respective items.

A. 50THER:

28. The project proponent shall allocate the separate fund of Rs. 70 Lakhs as committed before SEAC. The entire activities proposed under CER shall be part of the Environment Management Plan (EMP) as per the MoEF&CC's OM no. F. No. 22-65/2017-IA.III dated 30.09.2020. This shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to the District Collector. The monitoring report shall be posted on the website of the project proponent.

29. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s Kadam Environment Consultants and submitted by project proponent and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.

B. GENERAL CONDITIONS:

B.1 CONSTRUCTION PHASE:

30. Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.

31. Project proponent shall ensure that surrounding environment shall not be affected due to construction activity. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.

32. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.

33. First Aid Box shall be made readily available in adequate quantity at all the times.
34. The project proponent shall strictly comply with the Building and other Construction Workers' (Regulation of Employment & Conditions of Service) Act 1996 and Gujarat rules made there under and their subsequent amendments. Local bye-laws of concern authority shall be complied in letter and spirit.
35. Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase.
36. Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA Rules for air and noise emission standards.
37. Safe disposal of waste water and municipal solid wastes generated during the construction phase shall be ensured.
38. All topsoil excavated during construction activity shall be used in horticultural / landscape development within the project site.
39. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quantity of excavated earth shall be disposed off with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighbouring communities.
40. Project proponent shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, Ready Mix Concrete [RMC] and lead free paints in the project.
41. Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time.
42. "Wind – breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided. Individual building within the project site shall also be provided with barricades.
43. "No uncovered vehicles carrying construction material and waste shall be permitted."
44. "No loose soil or sand or construction & demolition waste or any other construction material that cause dust shall be left uncovered. Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured."
45. Roads leading to or at construction site must be paved and blacktopped (i.e. – metallic roads).
46. No excavation of soil shall be carried out without adequate dust mitigation measures in place.
47. Dust mitigation measure shall be displayed prominently at the construction site for easy public viewing.
48. Grinding and cutting of building materials in open area shall be prohibited.
49. Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.
50. Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site. (If applicable).



B.2 OPERATION PHASE:

B.2.1 WATER:

51. The water meter shall be installed and records of daily and monthly water consumption shall be maintained.
52. All efforts shall be made to optimize water consumption by exploring Best Available Technology (BAT). The unit shall continuously strive to reduce, recycle and reuse the treated effluent.

B.2.2 AIR:

53. In case of use of spray dryer, the unit shall provide the adequate & efficient APCMs with spray dryer so that there should not be any adverse impact on human health & environment. Unit shall carry out third party monitoring of the proposed Spray dryer & it's APCM through the credible institutes and study report for impacts on Environment and Human Health shall be submitted to GPCB every year along with half yearly compliance report.
54. Acoustic enclosure shall be provided to the DG sets (If applicable) to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards.
55. Stack/Vents (Whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/Process gas emission.
56. Flue gas emission & Process gas emission (If any) shall conform to the standards prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards.
57. All the reactors / vessels used in the manufacturing process shall be closed to reduce the fugitive emission.

B.2.3 HAZARDOUS/SOLID WASTE:

58. 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 shall be obtained for collection / treatment / storage / disposal of hazardous wastes.
59. 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.
60. The unit shall obtain necessary permission from the nearby TSDF site and CHWIF. (Whichever is applicable)
61. Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle

Act, 1988, and rules made there under.

62. The design of the Trucks/tankers shall be such that there is no spillage during transportation
63. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF.
64. Management of fly ash (If any) shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

B.2.4 SAFETY:

65. The occupier/manager shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963
66. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time 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.
67. Main entry and exit shall be separate and clearly marked in the facility.
68. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises.
69. Storage of flammable chemicals shall be sufficiently away from the production area.
70. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
71. All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.
72. 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.
73. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
74. Only flame proof electrical fittings shall be provided in the plant premises.
75. 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.
76. 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.
77. Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs.
78. Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency.
79. Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
80. First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
81. Training shall be imparted to all the workers on safety and health aspects of chemicals handling.
82. 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.
83. Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
84. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.
85. Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project.

B.2.5 NOISE:

86. 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 confirm to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

B.2.6 CLEANER PRODUCTION AND WASTE MINIMISATION:

87. 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.
88. The company shall undertake various waste minimization measures such as :
 - 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.

B.2.7 GREEN BELT AND OTHER PLANTATION:

89. 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.
90. Drip irrigation / low-volume, low-angle sprinkler system shall be used for the green belt development within the premises.

B.3 OTHER CONDITION:

91. Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-IA.III dated 09/08/2018 for Pharmaceutical and Chemical industries mentioned at (Sr. no. XX).
92. The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F.No.22-65/2017-IA.III dated 01/05/2018 to carry out the activities under CER in affected area around the project. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEFCC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.
93. Rain water harvesting of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter.
94. 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 Industrial Association or GIDC or GPCB or any such authority created for this purpose by the Govt. / GIDC.
95. Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting in addition the provision for solar water heating system shall also be provided.
96. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.
97. All the commitments / undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to.
98. 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 for the environmental protection and management.
99. 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.
100. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority.
101. During material transfer there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
102. Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.
103. Leakages from pipes, pumps shall be minimal and if occurs, shall be arrested promptly.
104. 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.
105. 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.
106. 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.
107. 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.
108. 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.
109. 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.
110. 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 soft copies to the regulatory authority concerned, on 1st June and 1st



December of each calendar year.

111. 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, 1986.
112. The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
113. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
114. 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.
115. 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.
116. This environmental clearance is valid for seven years from the date of issue.
117. 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.
118. Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision on the application makes this environment clearance cancelled.

With regards,
Yours sincerely,


(S. J. PANDIT)
Member Secretary

Issued to:
M/s. Alkyl Amines Chemicals Limited
Plot No. D2/CH/149/1/2 & D2/CH/149/2,
GIDC Dahej, Phase II,
Vagra Bharuch

