

From: S N PATEL (DY.GENERAL MANAGER - 9852) (sanjaykumar.patel@gacl.co.in)

Date: 03/07/2023 12:29

To: iro.gandhingr-mefcc@gov.in, ms-gpcb@gujarat.gov.in, ro-gpcb-nhar@gujarat.gov.in, prasoon.cpcb@nic.in

Cc: MANHARBHAI PATEL - M B PATEL (ADVISOR/ CONSULTANT) (manhar.patel@gacl.co.in)

Subject: **Online Submission of EC Compliance Report reg.**

Dear Sir/Madam

Enclosed please find EC Compliance Report for the period of October 2022 to March 2023 for two of our sites i.e. Plot D-II/9 and Plot D-III/3 as above.

This is for your information and record please.

Regards

Sanjay Patel
DGM - S, E & F
Gujarat Alkalies And Chemicals Limited
(Promoted by Govt. of Gujarat)

14-07-2023,

Fw[2]: Online Submission of EC Compliance Report reg.

Dahej - 392 130, Ta: Vagra, Dist: Bharuch, Gujarat (INDIA)
Tel.: 02641 613267
Mob.: 7069010861

—Attachments:—

| | |
|--|--------|
| EC Compliance Report GACL Plot D II-9 (Period - Oct 22 to Mar 23).pdf | 1.2 MB |
| EC Compliance Report GACL Plot D III-3 (Period - Oct 22 to Mar 23).pdf | 684 KB |



Gujarat Alkalies and Chemicals Limited

(Promoted by Govt. of Gujarat)

Dahej Complex : P.O. Dahej - 392130. Tal. Vagra, Dist. Bharuch (Gujarat) INDIA

Phone : +91-2641- 613200

CIN NO : L24110GJ1973PLC002247

S&E/DHJ/E-28A/22-23

Date- 31.05.2023

To,
Ministry of Environment, Forest and Climate Change,
Integrated Regional Office,
Gandhi Nagar, A-Wing – 407 & 409,
Aranya Bhawan,
Near CH-3 Circle, Sector-10A,
Gandhi Nagar – 382010

Sub: Submission of half yearly compliance report of EC(Period for report- 1st October 2022 to 31st March 2023)

Ref.: - EC issued vide letter no. - SEIAA/GUJ/EC/4(d),5(f)&1(d)/649/2020 Dated 09/06/2020

Dear Sir,

With reference to above, we are enclosing herewith six-monthly compliance report of above ECs for the period of 1st October 2022 to 31st March 2023.

Thanking you,
Yours faithfully,

For Gujarat Alkalies and Chemicals Limited-Dahej

S.N. Patel
27/06/2023
S. N. PATEL
DGM (S, E & F)

Encl: As Above



Regd. Office & Works : P.O. Petrochemicals - 391 346, Dist. Vadodara(Gujarat) INDIA

Phone : +91-265-6111000-7119000

Website : www.gacl.com



GUJARAT ALKALIES AND CHEMICALS LIMITED

Status of six monthly compliance of the stipulated conditions of the Environment Clearance no.
SEIAA/GUJ/EC/4(d),5(f)&1(d)/6492020 Dated 9th June 2020
Period - 1st October 2022 till 31st March 2023.

EC COMPLIANCE FOR PLOT D 2/9

Current Status: Only CLM plant is installed and commissioned. Besides CLM all other projects are yet to be started on ground.

| Sr No. | EC CONDITIONS: | Compliance status |
|------------|--|---|
| No. | After Bifurcation for GACL | |
| A.1 | Specific Condition | |
| 1 | Leak Detection and Repair (LDAR) program shall be prepared and, implemented as per the CPCB guidelines. | Noted for compliance. |
| 2 | Intermediate products/By-products mentioned in the product list qualifying the hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and its amendment time to time shall be sold only to the potential users who are authorized by the competent authority (MoEF/CPCB/SPCB) and provisions of said rules shall be complied in letter and spirit. | Noted and is being followed. |
| 3 | The company shall submit the list of authorized end users of above mentioned 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. | Noted for compliance and it is on-going compliance. |
| 4 | Continuous Emission Monitoring System (CEMS) shall be provided for monitoring of air pollutants and waste water discharge. | Noted for compliance. |
| 5 | -- | NA |
| 6 | -- | NA |
| 7 | Unit shall comply all the conditions & recommendations mentioned in the guidelines | Noted for compliance. |
| 8 | All measures shall be taken to prevent soil and ground water contamination. | Noted for compliance. |
| 9 | The project proponent shall submit the detailed study report to Gujarat Pollution Control Board (GPCB) at least once in a year comprising details of percolation rate of surface water, ground water analysis and observations of contamination to soil & ground water (If any) and mitigation measures to curb ground water & Soil contamination. | Noted for compliance. |
| 10 | Necessary approvals from PESO and concerned Govt. Authorities shall be obtained before commissioning of the project. | Noted and is being followed. |
| 11 | Unit shall provide captive incinerator for ECH plant as per the CPCB guide lines. | Noted for compliance. |
| 12 | Unit shall comply the emission standards mentioned in the Notification by MOEF&CC vide no. S.D. 3305 I dated 07/12/2015. | Noted for compliance. |



| | | |
|------------------|--|------------------------------|
| 13 | The Unit shall comply with the Provisions with reference to stack height for power plant as and when the draft Notification vide No. S.O. 3337 I dated 16 th October, 2017 is duly finalized and enforced. | Noted for compliance. |
| 14 | Unit shall use Imported Coal having Sulphur content less than 0.5 % in Captive Power Plant. | Noted for compliance. |
| 15 | Unit shall provide Online Emission and Effluent Monitoring System 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 on real time basis. | Noted for compliance. |
| 16 | Unit shall comply the emission standards mentioned in the Notification by MoEF&CC vide no. S.O. 3305 I dated 07/12/2015 and amended time to time. | Noted for compliance. |
| 17 | Unit shall comply all the conditions stipulated in Coal Handling Guidelines published by GPCB. | Noted for compliance. |
| 18 | The project proponent must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, State Government and/or any other statutory authority. | Noted. |
| 19 | The National Ambient Air Quality Emission Standards issued by the Ministry vide G. S. R. No. 826 I dated 16 th November, 2009 shall be complied with. | Noted and is being complied. |
| 20 | 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. | Noted. |
| 21 | The project proponent shall allocate the separate fund of Rs. 3436.25 lakhs i.e. 0.75 % of the capital investment in accordance to the MoEFCC's Office—Memorandum No. F.No.22-65/2017-IA.111 dated 01/05/2018. The entire activities proposed under CER 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 district collector. The monitoring report shall be posted on the website of the project proponent. | Noted for compliance. |
| 22 | All the Recommendations mitigation measures, environment protection measures and safeguards proposed in the EIA report of the project prepared by M/s: Eco Chem Sales and Services 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. | Noted and is being followed. |
| A.2 Water | | |
| 23 | Total water requirement for the project shall not exceed 2755 KLD. Unit shall reuse 272 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed 2463 KLD and it shall be met through GIDC water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water. | Noted and is being followed. |
| 24 | Prior permission from the concerned authority shall be obtained for withdrawal of water. | Noted for compliance. |
| 25 | No ground water shall be tapped for the project requirements. | Noted and is being followed. |
| 26 | The water meter shall be installed and records of daily and monthly water consumption shall be maintained. | Noted and is being followed. |



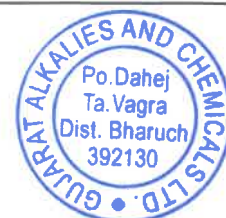
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| 27 | All efforts are made to optimize water consumption by exploring Best Available Technology (BAT). | Noted for compliance. |
| 28 | The unit shall continuously strive to reduce, recycle and reuse the treated effluent. | Noted for compliance. |
| 29 | Unit shall segregate industrial waste water streams as Stream A | Noted for compliance. |
| 30 | <u>Stream I:</u> Wastewater generated from Process, washing and safety showers from Chloromethane, Chlorotoluene, Epichlorohydrin and Chlorinated Paraffin Wax, plant (175 KLD) shall be treated in ETP-1 (Cap. 200 KLD) and treated water shall be discharged into GIDC effluent collection system for sea discharge. Waste <u>Stream-III:</u> The industrial effluent 363 KLD (199 KLD from boiler, 13 KLD from DM regeneration, 29 from softener backwash, 102 KLD from cooling tower blow down and 20 KLD from washing) shall be treated in adequate ETP-1A (Cap.400 KLD) followed by UF-1A and RO System-1A. RO Permeate (272 KLD) shall be reused for industrial purpose within plant premises. RO reject (91 KLD) shall be reused for dust suppression and for sprinkling in coal handling units within premises. | |
| 31 | Total Industrial waste water generation shall not exceed 538 KL/day | |
| 32 | Total discharge of waste water into GIDC's drain for deep sea disposal after conforming to outlet norms prescribed by GPCB/CPCB MoEF&CC shall not exceed 175 KLD. | |
| 33 | The company shall provide adequate effluent treatment plants for stream I and Stream III as mentioned above and it shall be operated regularly and efficiently so as to achieve the GPCB/CPCB/MoEF&CC norms. | |
| 34 | The treated effluent for final disposal shall not exceed 175 KLD and it shall be conveyed to GIDC drain for deep Sea disposal after ensuring that it meets with the discharge norms prescribed by GPCB. | |
| 35 | The unit shall provide continuous online monitoring system at the outlet of the ETP system and maintain records for the same. | Noted for compliance. |
| 36 | Unit shall take steps measures for reuse/recycle of wastewater as proposed in EIA/EMP report. | |
| 37 | Domestic wastewater generation shall not exceed 20 KLD for proposed project and it shall be treated in STP (Cap. 30 KLD). | Noted for compliance. |
| 38 | Treated sewage shall be utilized for gardening and plantation within premises after achieving prescribed GPCB norms. | Noted for compliance. |
| 39 | During monsoon season when treated sewage effluent 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 | Noted for compliance. |
| 40 | Unit shall provide buffer water storage tank of adequate capacity for storage of treated waste water during rainy days. | Noted for compliance. |
| 41 | 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. | Noted for compliance. |



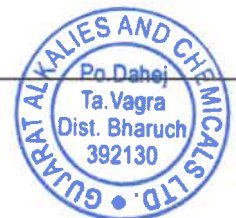
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|---|---|---------------------------|-------------------------|-----------------------------------|--------------------------|---------------------------------|--------------------------|---|
| 42 | Proper logbooks of ETP-1 & ETP-1A, & UF/RO Operations, Chemical Consumption, quantities and qualities of effluent discharge and reuse, power consumption etc. shall be maintained and shall be furnished to the GPCB from time to time. | | | | | | | Noted for compliance. |
| 43 | The unit shall provide metering facility at the inlet and outlets ETP-1, ETP-1A, STP, UF, RO, reuse lines, discharge line and maintain records for the same. | | | | | | | |
| A.3 Air | | | | | | | | |
| Unit shall not exceed fuel consumption as mentioned in the table. | | | | | | | | |
| | S. No. | Stack Attached to | Stack Height (M) | Nos of stacks | Type of Fuel used | Qty. of fuel consumption | Type of Fuel used | Noted for compliance. |
| 44 | 1 | D. G. Set (1*225 kVA) | 9 | 1 | HSD | 50 LPH | Adequate stack height | |
| | 2 | D. G. Set (1*1000 kVA) | 9 | 1 | HSD | 910 LPH | Adequate stack height | |
| | 3 | Boilers – 280 TPH | 50 | 1 | Imported coal | 892 TPD. | ESP | |
| 45 | Unit shall provide adequate APCM as mentioned in the above table. | | | | | | | Noted for compliance. |
| 46 | Sulfur and ash content of the fuel to be used shall be analyzed and its record shall be maintained. | | | | | | | The requirement will be complied at the execution stage of power plant. |
| 47 | A long term study of radio activity and heavy metals contents on coal lignite to be used shall be carried out through a reputed institute and results thereof analyzed regularly and reported along with monitoring, reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal lignite and fly ash (including bottom ash) shall be put in place. | | | | | | | |
| 48 | Height of flue gas stacks attached to Boilers shall be minimum 50 m. | | | | | | | |
| 49 | High efficiency Electro Static Precipitators (ESP) with efficiency not less than 99.9% shall be installed for control of flue gas emission from the proposed Boilers. The ESP shall be operated efficiently to ensure that particulate matter emission does not exceed the GPCB norms. The control system shall be designed and integrated in plant DCS in such a way that if emission from ESP exceeds the specified standard prescribed in the Environment (Protection) Rules, 1986 as amended time to time, utilization of boiler capacity shall reduce so that flue gas emission from the stack meets with the specified standards or boiler shall shut down totally. | | | | | | | |
| 50 | Third party monitoring of the functioning of the ESP along with its efficiency shall be carried out once in a year through a reputed institute / organization. | | | | | | | |
| 51 | Lime stone injection technology shall be adopted to control S02 and it shall be ensured that S02 levels in the ambient air do not exceed the prescribed standards. | | | | | | | |
| 52 | The company shall prepare schedule and carry out regular preventive maintenance of mechanical and electrical parts of ESPs and assign responsibility of preventive maintenance to the senior officer of the company. | | | | | | | |
| Unit shall provide APCM for various plants as per the table. | | | | | | | | |
| | S/N | Source of Emission | Type of Emission | Stack/ Vent Height (meter) | APCM | | | |



| | | | | | | |
|----|---|---|--|----|-------------------------|---|
| 53 | 1 | Reactor of Chlorotoluene plant | HCl, Cl ₂ | 33 | Caustic Soda Scrubber | Noted and is being complied at CLM Plant. |
| | 2 | Scrubbing unit in Chloromethanes plant | HCl, Cl ₂ , CO, SO ₂ , Nox, HC | 30 | Water + Alkali Scrubber | |
| | 3 | Incinerator of Epichlorohydrin plant | NO _x , CO, HCl, C ₂ H ₄ Cl ₂ , TOC, Dioxin | 25 | Caustic Scrubber | |
| 54 | Adequate Air Pollution Control Measures [APCM] shall be provided. | | | | | Noted for compliance. |
| 55 | Flue gas emission & Process gas emission (Whichever is applicable) shall conform to the standard prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards. | | | | | Noted for compliance. |
| 56 | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 I dated 16 th November, 2009 shall be followed. | | | | | Noted for compliance. |
| 57 | Unit shall take adequate measures to control fugitive emissions as below: | | | | | |
| | i | All the joints, flanges, pumps, glands, seals, valves shall be maintained in good conditions through timely predictive and preventive maintenance. | | | | Noted for compliance. |
| | ii | Regular workplace monitoring shall be carried out for HCl & Cl ₂ at various locations within plant. | | | | Noted for compliance. |
| | iii | Boundary wall as Wind breaker shall be provided to restrict the dispersion of odor dust from the site. | | | | Noted and is being complied. |
| | iv | Well-developed green belt is provided at the existing site and shall be maintained for the proposed project. | | | | Noted for compliance. |
| | v | All tanks being used for storage of odorous chemicals products shall be connected to vacuum system. Manometers shall be provided on these tanks. The vacuum shall be monitored on daily basis and actions shall be taken accordingly. | | | | Noted for compliance. |
| | vi | All pumps handling hazardous chemicals shall be provided with mechanical seals to prevent fugitive emission. Wherever possible magnetic coupled pumps shall be used. | | | | Complied. |
| | vii | Any spillage from drums etc. shall be absorbed with saw dust/ soda ash and moped clean. The contaminated absorbent shall be safely disposed off along with hazardous waste. | | | | Noted and is being followed as advidsed. |
| | viii | Manual Handling of various chemicals shall be avoided and shall be designed by implementing latest automation technology. | | | | Noted and is being followed as advidsed. |
| | ix | All venting equipment shall have vapor recovery system. Measuring Instruments with sound alarm and having strategically placed sensing elements shall be provided for alerting the personnel in case of any escape of gases like Chlorine. Interlock with blower shall be provided. | | | | Noted for compliance. |
| 58 | 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. | | | | | Noted for compliance. |



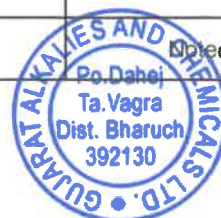
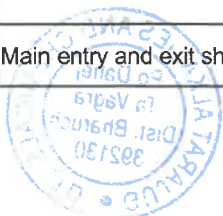
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| 59 | The fugitive emission in the work zone environment shall be monitored. The emission shall conform to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health). Following indicative guidelines shall also be followed to reduce the fugitive emission. | Noted and is being followed. |
| Ø | Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement. | Complied. |
| Ø | Air borne dust shall be controlled with water sprinklers at suitable locations in the plant. | Complied. |
| Ø | A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission. | Noted and is an ongoing compliance. |
| 60 | Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out in the work zone area and ambient air. | Noted for compliance. |
| 61 | Airborne dust all transfers operations points shall be controlled either by spraying water or providing enclosures. | Noted for compliance. |
| 62 | 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. | Noted and is being followed. |
| Ø | All handling & transport of coal shall be exercised through covered coal conveyors only. | The requirement will be complied at the execution stage of power plant. |
| Ø | Enclosure shall be provided at Coal loading and unloading operations. | |
| Ø | Water shall be sprinkled on Coal stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission. | |
| Ø | All transfer points shall be fully enclosed. | |
| Ø | Adequate dust suppression/extraction system at crusher house as well as for the Coal/lignite stock yard and other vulnerable areas shall be provided to abate dust nuisance. | |
| Ø | Accumulated coal dust /fly ash on the ground and other surfaces shall be removed / swept regularly and water the area after sweeping, | |
| Ø | Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement. | |
| Ø | Air borne dust shall be controlled with water sprinklers at suitable locations in the plant. | |
| Ø | Coal/Lignite shall be transported through covered trucks only whereas fly ash shall be transported through closed trucks only. | |
| Ø | A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive & transport dust emission. | |
| 63 | Regular monitoring of ground level concentration of PM10, PM2.5, SO2, NOx, HC, Dioxin and VOC 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. | Noted for compliance. |



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| 64 | Stack/Vents (Whichever is applicable) of adequate height shall be provided as per the prevailing norms for flue gas emission/Process gas emission. | Complied. | |
| 65 | Adequate Air Pollution Control Measures (APCM) shall be provided. | Complied. | |
| 66 | Flue gas emission & Process gas emission shall conform to the standards prescribed by the GPCB/CPCB/MoEF&CC. At no time, emission level should go beyond the stipulated standards. | Noted for compliance. | |
| 67 | All the reactors / vessels used in the manufacturing process shall be closed to reduce the fugitive emission. | Complied. | |
| 68 | Online monitoring system shall be installed to monitor the SOx, Nox and SPM in the flue gas stack. 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 | Noted for compliance. | |
| 69 | Adequate storage facility for the fly ash in terms of closed silos shall be provided at site. No ash pond shall be constructed. | | |
| 70 | Handling of the fly ash shall be through a closed pneumatic system. | | |
| 71 | Ash shall be handled only in dry state. | | |
| 72 | The unit shall strictly comply with the Fly Ash Notification under the EPA and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit. | | |
| 73 | There shall be no process gas emission from the proposed project | | |
| A.4 | Solid / Hazardous Waste | | |
| 73 | 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. | Noted and is being complied. | |
| 74 | Any by-products which fall under the purview of the Hazardous and other Wastes (Management and Transboundary Movement) Rules 2016 shall be handled as per the said rules and necessary permissions from the concern authority shall be obtained. | Noted for compliance. | |
| 75 | 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. | Noted and is being complied. | |
| Management of Hazardous waste shall be according to the table. | | | |
| S/N | Type/ Name of Hazardous waste | Source of Generation | Disposal Method |
| 1 | High M.P Liquid Impurities | Chlorotoluene Plant | Incineration (In-house / BEIL-Dahej) |
| 2 | Used/spent oil | DG Sets | Sold to GPCB authorized reprocesses |
| 3 | Discarded drums and containers | Process | Collection, decontamination & sold to GPCB authorized recyclers |
| 4 | Oil Contaminated cotton rags or other cleaning materials | Handling | Incineration in captive incinerator / BEIL Incinerator |
| 5 | ETP waste | ETP | TSDf of BEIL-Dahej |



| | | | | | |
|------------|---|--|-------------|---|--------|
| 76 | 6 | Incineration Ash | ECH Plant | TSDf of BEIL-Dahej | Noted. |
| | 7 | Waste residue from industrial use of paint | Entire site | Shall be sold to Authorised recyclers by auction process | |
| | 8 | Lead washers etc. as Lead scrap | Entire site | Sold to recyclers registered with MSTC and possessing requisite valid Environmental permissions from respective State Pollution Control Boards by auction process | |
| | 9 | Nickel Scrap | Entire site | Sold to recyclers registered with MSTC and possessing requisite valid Environmental permissions from respective State Pollution Control Boards by auction process | |
| | 10 | Copper tubing, caps and cables etc. – As Copper scrap | Entire site | Sold to recyclers registered with MSTC and possessing requisite valid Environmental permissions from respective State Pollution Control Boards by auction process | |
| | 11 | Spent Carbon | Entire site | Incineration in captive incinerator / BEIL incinerator | |
| | 12 | Discarded bags / liner / packing material, Discarded PPEs, gaskets | Entire site | Shall be sold to Authorised recyclers by auction process | |
| 77 | The unit shall obtain necessary permission from the nearby TSDf site and CHWIF. | | | Noted for compliance. | |
| 78 | 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. | | | Noted for compliance. | |
| 79 | 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 | | | | |
| 80 | 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. | | | Noted and is being followed. | |
| 81 | The design of the Trucks/tankers shall be such that there is no spillage during transportation. | | | Noted and is being followed. | |
| 82 | All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDf/CHWIF. | | | Noted for compliance. | |
| A.5 | Safety | | | | |
| 83 | The occupier/project proponent shall strictly comply the provisions under the Factories Act 1948 and the Gujarat Factories Rules 1963 as well as Manufacture, Storage and Impact of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals. | | | Noted for compliance. | |
| 84 | 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 Onsite and Off-site Management Plans have to be prepared and implemented. | | | Noted for compliance. | |
| 85 | Main entry and exit shall be separate and clearly marked in the facility. | | | Noted and Followed. | |



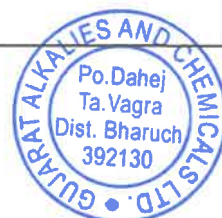
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| 86 | Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/ emergency vehicle around the premises. | Noted for compliance. |
| 87 | Storage of flammable chemicals shall be sufficiently away from the production area. | Complied. |
| 88 | Sufficient number of fire extinguishers shall be provided near the plant and storage area. | Complied. |
| 89 | All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals. | well noted and is being followed. |
| 90 | 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. | Complied. |
| 91 | The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report. | Noted for compliance. |
| 92 | Only flame proof electrical fittings shall be provided in the plant premises. | Noted for compliance. |
| 93 | 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. | Noted for compliance. |
| 94 | 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. | Noted for compliance. |
| 95 | Handling and charging of the chemicals shall be done in closed manner by pumping or by vacuum transfer so that minimal human exposure occurs. | Noted for compliance. |
| 96 | Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency. | Noted for compliance. |
| 97 | Personal Protective Equipments (PPEs) shall be provided to workers and its usage shall be ensured and supervised. | Complied. |
| 98 | First Aid Box and required Antidotes for the chemicals used in the unit shall be made readily available in adequate quantity. | Complied. |
| 99 | 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. | Complied. |
| 100 | Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules. | Complied. |
| 101 | The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report. | Noted for compliance. |
| 102 | Necessary permissions from various statutory authorities like PESO, Factory Inspectorate and others shall be obtained prior to commissioning of the project. | Noted for compliance. |



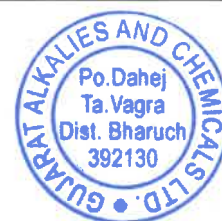
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| 103 | Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be maintained. | Noted and is being followed. |
| 104 | Effective safety precaution shall be taken for chemical storage, process handling and transportation hazard. | Noted and is being complied. |
| 105 | Unit shall prepare and Implement SOP for safe operation of the works. | Complied. |
| 106 | The unit shall comply the statutory provision of safety audit & its compliance report. | Noted for compliance. |
| 107 | Effective step shall be taken for prevention of fire. Explosion & toxic release | Noted for compliance. |
| 108 | Proper ventilation shall be provided in the work area | Complied. |
| 109 | Necessary precautions like continuous monitoring of hot spots [ignited lignite] using temperature detection systems, water sprinklings, avoiding stacking of lignite near steam pipeline etc. shall be made for storing lignite to prevent fire hazard | The requirement will be complied at the execution stage of power plant. |
| 110 | A well designed fire hydrant system shall be installed as per prevailing standards | Complied. |
| 111 | Adequate fire fighting facilities shall be provide at the proposed power plant All transporting routes within the factory premise shall have paved roads to minimize splashes and spillages | The requirement will be complied at the execution stage of power plant. |
| 112 | The project management shall prepare as detailed disaster management plan (DMP) for the project as per the guidelines from directorate of Industrial safety and health | Noted for compliance. |
| A.6 | Noise | |
| 113 | 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. | Noted for compliance. |
| 114 | To minimize the noise pollution the following noise control measures shall be implemented: | |
| ∅ | Selection of any new plant equipment shall be made with specification of low noise levels. | |
| ∅ | Manufacturers / suppliers of major noise generating machines / equipment's like air compressors, feeder pumps, turbine generators, etc. shall be instructed to make required design modifications wherever possible before supply and installation to mitigate the noise generation and to comply with the national/international regulatory norms with respect to noise generation for individual units | |
| ∅ | Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact. | |



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| Ø | Noise suppression measures such as enclosures, buffers and / or protective measures shall be provided. | Noted and is being followed. |
| Ø | Employees shall be provided with ear protection measures like earplugs or earmuffs. | |
| Ø | Proper oiling, lubrication and preventive maintenance shall be carried out of the machineries and equipment's to reduce noise generation.□. | |
| Ø | Construction equipment generating minimum noise and vibration shall be chosen. | |
| Ø | Ear plugs and/muffs shall be made compulsory for the construction workers working near the noise generating activities / machines / equipment. | |
| Ø | Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate . | |
| Ø | Construction equipment meeting the norms specified by EP Act, 1986 shall only be used . | |
| Ø | Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas. . | |
| Ø | Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment. | |
| A.7 | Cleaner Production and Waste Minimisation | |
| 115 | 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. | Noted for compliance. |
| 116 | The company shall undertake various waste minimization measures such as: | Noted and is being followed. |
| 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 of mopping of floor instead of floor washing to avoid effluent generation. | |
| j | Regular preventive maintenance for avoiding leakage, spillage etc. | |
| A.8 | Greenbelt and Other Plantation | |
| 117 | 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. | Noted for Compliance. |



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| 118 | Drip irrigation flow-volume, low-angle sprinkler system shall be used for the green belt development within the premises. | Noted for compliance |
| B. | Other Conditions | |
| 119 | Unit shall comply all the applicable standard conditions prescribed in Office Memorandum (OM) published by MoEF&CC vide no. F. No. 22-34/2018-1A.111 dated 09/08/2018. | Noted for compliance. |
| 120 | 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 | Spray dryer is not proposed for the project. |
| 120 | The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste Management Rules, 2016 shall be followed. | Noted for compliance. |
| 121 | The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F.No.22-6512017-1A.111 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 MoEF&CC 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. | Noted for compliance. |
| 122 | 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 around water. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter. | Noted for compliance. |
| 123 | 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. I GIDC. | Noted for compliance. |
| 124 | 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. | Noted for compliance. |
| 125 | The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose. | Noted for compliance. |
| 126 | All the commitments in undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to. | Noted for compliance. |
| 127 | A separate environment management cell with qualified staff shall be set up for implementation of the stipulated | Noted for compliance. |
| 128 | All the recommendations / commitments made in the EIAIEMP report of the project shall be implemented | Noted for compliance. |



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| 129 | 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. | Noted for compliance. |
| 130 | The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any statutory authority. | Noted for compliance. |
| 131 | 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. | Noted and is being followed. |
| 132 | Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling area. | Noted for compliance. |
| 133 | Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly. | Noted for compliance. |
| 134 | The funds earmarked for environment protection measures shall be maintained in a separate account. | Noted for compliance. |
| 135 | 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. | Noted for compliance. |
| 136 | The above condition will be enforced, inter-alia under the provision of the Water (prevention and control of pollution) Act 1974, the Air (prevention and 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 rules. The project proponent shall comply all the condition mentioned in "The Companies (Corporate Social Responsibility Policy) Rules, 2014" and its amendments from time to time in a letter and spirit. | Noted. |
| 137 | All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project prepared by M/s: Kadam Environmental Consultants, Vadodara and submitted by project proponent online application vide no. SIA/GJ/IND2/2162512016 dated 24/01/2018 and commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit. | Noted for compliance. |



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| 138 | 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. | Noted for compliance. |
| 139 | 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. | Noted for compliance. |
| 140 | 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. | Noted for compliance. |
| 141 | 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 copy each of the same shall be forwarded to the concerned Regional Office of the Ministry. | Complied. |
| 142 | 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. | Agreed. |
| 143 | It shall be mandatory for the project management to submit yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copy to the regulatory authority concerned, on 1st June and 1st December of each calendar year. | Noted and Complied. |
| 144 | Concealing factual data or submission of false or 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. | Noted. |
| 145 | The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board. | Noted. |
| 146 | The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory. | Noted. |
| 147 | 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. | Noted. |
| 148 | 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. | Noted. |
| 149 | This environmental clearance is valid for seven years from the date of issue. | Noted. |
| 150 | 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. | Noted. |
| 151 | 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. | Noted. |

