



**State Environment Impact Assessment Authority, M.P.**  
(Ministry of Environment, Forest and Climate Change, Government of India)

**Environmental Planning & Coordination Organization**

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To,

M/s Aarti Surfactants Limited,  
71, Udyog Kshetra, 2nd Floor,  
Mulund Goregaon Link Road,  
Mulund West, Mumbai (Maharashtra) - 400080,

No.: 3686 /SEIAA Ac

Date: 14.10. Ac

**Sub:- Case No. 6926/2020** : Prior Environment Clearance for Capacity expansion in Sulfonated Products from 36000 TPA to 125000 TPA, Specialty Chemical Product - 50000 TPA and Intermittent Product - 1900 TPA at Plot No. 57, 58, 60, 61, 62, 62-A, 63, 64, S-3/1, Pithampur Industrial Area, Sector-3, Sagore Village, Pithampur, Dist. Dhar, (MP) Land area - 38133.76 sq.m.(Existing- 17240.00 sq.m. Proposed - 20893.76 sq.m). by M/s Aarti Surfactants Limited, 71, Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund West, Mumbai - 400080, E-mail [info@aarti-surfactants.com](mailto:info@aarti-surfactants.com), Mobile - 9926824036 Env. Con.-Creative Enviro Services, Bhopal (M.P.).

**Ref:** Your application dtd. 28.01.20 received in SEIAA office on 05.03.2020

With reference to the above, the proposal has been appraised as per prescribed procedure & provisions under the EIA notification issued by the Ministry of Environment & Forests vide S.O. 1533 (E), dated 14<sup>th</sup> September 2006 and its amendments, on the basis of the mandatory documents enclosed with the application viz., Form I, pre-feasibility report, ToR, EIA Report, ppt. and additional clarifications furnished in response to observations by the State Expert Appraisal Committee (SEAC) and State Environment Impact Assessment Authority (SEIAA) constituted by the competent Authority.

- (i) The project is proposed for capacity expansion in Sulfonated Products from 36,000 TPA to 1,25,000 TPA, Specialty Chemical Product - 50,000 TPA and Intermittent Product - 1,900 TPA at Plot No. 57, 58, 60, 61, 62, 62-A, 63, 64, S-3/1, Pithampur Industrial Area, Sector-3, Sagore Village, Pithampur, Dist. Dhar, (MP).
- (ii) Industry is proposing capacity expansion in consideration with enhancement in existing product as well as addition of new product given as below :
  - Expansion in sulfonated products from 36000 TPA to 125000 TPA (Expansion)
  - Specialty Chemical Product : 50000 TPA ( Addition)
  - Intermittent Product from 300 TPA to 1900 TPA ( Expansion)
- (iii) The unit is manufacturing sulfonated products like Alfa Olefin Sulfonate (AOS), Sodium Lauryl Sulfate (SLS)/ Sodium Coco Sulfate (SCS), Sodium Lauryl Ether Sulfate (SLES), Linear Alkyl Benzene Sulfonic Acid (LABSA /Acid Slurry), Ammonium Lauryl Sulfate (ALS), Ammonium Lauryl Ether Sulfate (ALES) with



production capacity of 36000 TPA and intend to have expansion in production capacity of sulfonated products with the tune of 89000 TPA in above products with intermittent products at the tune of 600 TPA in adjoining plots 62A, 58, S3/1.

- (iv) The unit will be manufacturing Speciality Chemical Products ( Surfactants) like Coco amido Propyl Betaine (CAPB 30% on Cocoyl), Benzophenon - 3, Benzophenon-4, Ethylene Glycol Mono Stearate, Ethylene Glycol Di- Stearate, DiDecyl Methyl Ammonium Chloride (DDAC), Sodium Lauryl Sarcosinate(30% solution), Sodium Lauryl (or Cocoyl) Glycinate(30% solution), Sodium Cocoyl Isothionate(85%), flakes or needles, Octyl Methoxy Cinnamate, Avobenzene, Octocrylene, Taurate, Glutamate and intend to have set up in production capacity of Speciality Chemical products with the tune of 50000 TPA with by products at the tune of 1300 TPA in adjoining plots 60 & 61.
- (v) ASL intends to utilize the installed plant capacity of 175000 MT/year.
- (vi) Earlier EC (Case no. 5662/2018) obtained from SEIAA vide letter dated 1524-25/SEIAA/18 dated 11.10.18 and transfer of EC vide letter no. 4206-07/SEIAA/20 dated 28-01-20. For existing product PP has obtained AIR and water consent order from MPPCB which is valid up to 31.12.2020.
- (vii) The Salient Features of the project is as follows:-

Particulate	Existing	Proposed	Total Configuration
Product	36000 MTPA of sulfonated products and 300 MTPA of intermittent products.	89000 MTPA of sulfonated products and 50000 MTPA of speciality chemical products and 1600 MTPA of intermittent products	175000 MTPA of sulfonated and speciality chemical products and 1900 MTPA of intermittent products
Estimated Project Cost	5500.00 Lakh.	4500.00 Lakh.	10000.00 Lakh.
Land	17240.00 SqM	20893.76 SqM	38133.76 SqM
Total Water Consumption	380 KLD	323 KLD	703 KLD
Source of Water Supply	Through AKVN Supply		
Waste Water Generation	25.5 KLD	45.5 KLD	71 KLD
Treatment Facility	ETP Capacity- 45 KLD MES Capacity :30 KLD, RO:65KLD, MEE : 10KLD, ATFD : 1.5KLD STP Capacity- 50 KLD ,	ETP Capacity- 30 KLD, RO: 65KLD and ATFD 1.5 KL, products.	ETP Capacity- 75 KLD, RO: 130 KLD, MEE 10 KLD, MES Capacity 30 KLD, ATFD - 3 KLD and STP- 50 KLD Rests the available facilities are adequate for proposed expansion products.
Source of power supply	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company		
Power Requirement	Existing : 2510 KVA (existing)	Proposed :3030 KVA	Total – 5540 KVA
Fuel Options	Fuel for Boiler is coal and HSD for DG sets, Waste heat Boiler	For Proposed : Waste heat Boiler and HSD for DG sets	In Existing facility : Fuel for Boiler is coal and HSD for DG sets For Proposed : Waste



			heat Boiler and HSD for DG sets
Major Equipments	Multi Tube Reactor, Annular Falling Film Reactor, Neutralization Skid, Hydrolyzer, Filters, Air Drying Plant, Waste Heat Boiler, Cooling Tower, Air Pollution Control Devices, etc.	Multi Tube Reactor, Annular Falling Film Reactor, Neutralization Skid, Hydrolyzer, Filters, Air Drying Plant, Waste Heat Boiler, Cooling Tower, Air Pollution Control Devices, Agitated SS Reactors (5 kl), Agitated SS Reactors (8 kl), Agitated SS Reactors (10 kl), Agitated SS Reactors (30 kl), Agitated HDPE Reactors (10kl), Rising film Heat Exchangers, Stainless steel Condenser -(5 M2), Stainless steel sparkler filter (1000 lt/hr),	Multi Tube Reactor, Annular Falling Film Reactor, Neutralization Skid, Hydrolyzer, Filters, Air Drying Plant, Waste Heat Boiler, Cooling Tower, Air Pollution Control Devices, Agitated SS Reactors (5 kl), Agitated SS Reactors (8 kl), Agitated SS Reactors (10 kl), Agitated SS Reactors (30 kl), Agitated HDPE Reactors (10kl), Rising
Major Equipments	Multi Tube Reactor, Annular Falling Film Reactor, Neutralization Skid, Hydrolyzer, Filters, Air Drying Plant, Waste Heat Boiler, Cooling Tower, Air Pollution Control Devices, etc.	Raw material transfer pumps, Product transfer pumps, Distillation System, Centrifuges, Dosing Tanks (1 kl), Receiver tank(1 kl)	Rising film Heat Exchangers, Stainless steel Condenser - (5 M2), Stainless steel sparkler filter (1000 lt/hr), Raw material transfer pumps, Product transfer pumps, Distillation System, Centrifuges, Dosing Tanks (1 kl), Receiver tank (1 kl)
Green Belt	Existing : 5689.20 Sq Mtr	Proposed: 6894.90 Sq Mtr	Total – 12584.14 Sqm and 12786.63 Sqm in AKVN provided land.
Capital cost of environment protection measures	Rs 545 Lacs	Rs 290 + 2.60 Lacs = 292.60 Lacs	Rs 835 + 2.60 Lacs = 837.60 Lacs
Recurring cost of environment protection measures	Rs 33.60 Lacs	Rs 8.92 Lacs + Rs 40 Lacs (towards O&M cost of Air Pollution Control system, ETP, MEE, Incinerator, = Rs 48.92 Lacs	Rs 82.52 Lacs
Fund for CER activities	Existing: 36 Lcas for last three years Proposed: 45 Lcas		

(viii) The proposed & existing product and production capacities are as follows:-

Types of Products	Capacity, Mt Per Year		
	Existing	Additional	Total
A.) Sulfonated Products			



Alfa Olefin Sulfonate (AOS)	36000 MT (100% Active Matter basis) (Either any one or combined)	89000 MT (100% Active Matter basis) (Either any one or combined)	125000 MT (100% Active Matter basis) (Either any one or combined)
Sodium Lauryl Sulfate (SLS) / Sodium Coco Sulfate (SCS)			
Sodium Lauryl Ether Sulfate (SLES)			
Linear Alkyl Benzene Sulfonic Acid (LABSA /Acid Slurry)			
Ammonium Lauryl Sulfate (ALS)			
Ammonium Lauryl Ether Sulfate (ALES)			

Types of Products	Capacity, Mt Per Year			
	Existing	Additional	Tons/ Year	Total
<b>B.) Speciality Surfactants</b>				
Coco amido Propyl Betaine (CAPB 30% on Cocoyl)	Nil	Nil	27000	30000 (Either Any One or Combined )
Ethylene Glycol Mono Stearate	Nil	Nil	500	
Ethylene Glycol Di-Stearate	Nil	Nil	500	
Di Decyl Methyl Ammonium Chloride (DDAC)	Nil	Nil	2000	
<b>C.) Mild Surfactants</b>	<b>Existing</b>	<b>Total</b>	<b>Tons/ Year</b>	<b>Total</b>
Sodium Lauryl Sarcosinate(30%solution)	Nil	Nil	6000	Maximum 18000 Mt/year.
Sodium Lauryl ( or Cocoyl) Glycinate (30% solution)	Nil	Nil	6000	
Sodium Cocoyl Isothionate (85%) Flakes or needles	Nil	Nil	5000	
Taurate	Nil	Nil	5000	
Glutamate	Nil	Nil	5000	
<b>D.)Sun Screen Products</b>	<b>Existing</b>	<b>Total</b>		
Avobenzene	Nil	Nil	1000	Maximum 2000 Mt/year.
Octocylene	Nil	Nil	1000	
Benzophenon 3	Nil	Nil	1000	
Benzophenon 4	Nil	Nil	1000	

- (ix) The proposed project is covered under 5 (f) category (B) of the schedule of EIA Notification issued by the Ministry of Environment & Forests vide S.O.1533 (E), dtd. 14.09.2006 and its amendments, hence is required to obtain prior EC.



(x) There is no interstate boundary within 10 km (PWD letter dtd. 27.02.18) and no National Park / Sanctuary (within the 5 km of the project area hence the general conditions are not attracted.

(xi) During presentation in SEAC PP was asked to provide MoEF&CC compliance report for which PP submitted that they are regularly submitting six monthly compliance report to the competent authorities and also requested MoEF&CC to carryout compliance inspection which was due on 27<sup>th</sup> July but due to some reason (COVID-19) the visit could not be materialized. The matter also considered before the authority and It is decided that the EC is considered only on the regular submission of compliance report to the competent authorities and PP should advised to submit compliance report after carryout compliance inspection by MoEF &CC.

(xii) The project occupies total plot Area of 38133.76 sq.m. (Existing- 17240.00 sq.m. Proposed – 20893.76 sq.m) and involve in business of manufacturing of sulfonation products. PP has submitted copy o amended lease deed dtd 20.04.2010, 22.09.2016 and 04.05.2019 which is executed between MD, MPAKVN (Indore) Ltd. and M/s Aarti Industries Ltd for the said project..

Land Use Break up of the Project Area			
Scenario	Total Area, Sq M	Built up Area, Sq M	Green Area, Sq M
Existing	17240	14225.7	5689.20
Additional	20893.76	18488.76	6894.90
<b>Total</b>	<b>38133.76</b>	<b>32714.46</b>	<b>12584.14</b>
Additional Green space Zone 1 & Zone 2 (12786.63 SqM ) is prepared in AKVN provided allotment land			

(xiii) The water requirement for the existing project is 380 KL per day which will be increased to approx. 703 KLD and sourced from AKVN. PP has submitted MPAKVN (Indore) letter (dtd. 10.03.2017) for water supply for the project. PP has submitted agreement letter dtd. 07.03.2017 which is executed between MD, MPAKVN (Indore) Ltd. and M/s Aarti Industries Ltd for the supply of water..

(xiv) Total cumulative waste water generation of 71 KLD and will be treated in ETP of 75 KLD, RO of 130 KLD, MEE of 10 KLD, ATFD of 1.5 KLD, STP of 50 KL/day. The treated water will be used for cooling towers, floor washing and gardening/green belt.

(xv) Solid waste generated during the manufacturing process and sludge from waste water treatment process will be disposed at authorized TSDF facility, as per Hazardous and Other Waste (Management & Trans-boundary Movement) Rules, 2008 (Amendment 2016). M/s AIL (SSD) will take expanded authorization Under Hazardous Waste (Management, Handling & Trans-boundary Movement), Rules.

(xvi) The following measures will be adopted to ensure solid and hazardous waste management:

- Hazardous materials shall not be stored near surface waters and shall be stored under plastic sheeting to prevent leaks and spills.
- The recyclable items like metal, plastic shall be sent to recyclable industry, and rest of this scrap shall be stored in a covered area.
- Wherever materials (aggregates, sand, etc.) are more likely to generate fine airborne particles during operations, nominal wetting by water shall be practiced.
- Workers / labour shall be given proper air masks and helmets.



- Utmost care shall be taken to store these materials at a suitable place and then disposed off at a place in consultation with and as per the guidelines of Madhya Pradesh SPCB/CPCB.
- (xvii) Power requirement of 5540 KVA will be sourced from existing line of 'Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company'. The company is already authorized to use power load of 2500KVA. In case of power failure, D.G. set (1500 KVA, 2X1010 KVA, and 2X1010 KVA) will be used as a backup power source.
- (xviii) The sources of air emission expected from the plant are gaseous emissions from Boilers, DG set and process. For control of air pollution PP has proposed as follows:-
- Bag filter is/will be provided with the existing and proposed boiler of 3 and 2 TPH. Stack emission of existing boiler shall be regularly monitored by installation of on line monitoring system to ensure that given limits. At present the capacity utilization is about 50 -60% only. Company has provided fluidized bed for getting higher efficiency and minimizes losses.
  - Regular monitoring of the stack emission of existing scrubber shall be continued for better control of the emission.
  - Company has installed 3 No of Electrostatic Precipitator (ESP) to take care of acid mist.
  - Company has installed 2 No of Alkali scrubbers to take care of trace quantities of SO<sub>2</sub>/ SO<sub>3</sub>.
  - Company has provided 2 No of Process Stacks having 30 meter height to discharge Process Air containing minimal traces of SO<sub>2</sub> and SO<sub>3</sub>.
  - Company will install 2 No of alkali scrubbers to take care of trace quantities of AlCl<sub>3</sub> fumes and will install 2 no of process stacks having 30 mtr height to discharge process fumes traces of AlCl<sub>3</sub>.
  - Company has installed De-dusting system and Positive Powder Displacement System to minimize and recycle of dust. Both the systems are provided with high efficient Bag Filters and dust collected in bag filters is reused in the process
  - Company proposes to install two waste heat boilers to utilize the plant heat.
  - Routine Environmental Monitoring is carried out on quarterly basis to ensure compliance to PCB norms.
  - Company installed Pressure operated Condensate Recovery Units & reuse at least 50% of Steam Condensate
  - Regular monitoring will be done of piping and fittings for checking of any leakages.
- (xix) In Fugitive emissions are anticipated from equipment leakage and transfer spills. The periodic maintenance program shall ensure integrity of equipment mitigating the equipment leakage. The spills however shall be managed by adopting the spill management scheme as mentioned in the respective MSDS. The fugitive emissions shall be reduced by closed transfer and handling of all hazardous solvents and chemicals. To control the fugitive dust emissions due to transportation activity, all the roads within the plant area shall be asphalted. All the unpaved roads as well as paved roads shall be sprinkled with water.
- (xx) PP has included Disaster Management plan in the EIA Report. For firefighting measure PP has provided Fire extinguishers and Fire Hydrants at project site.
- (xxi) Green belt over an area of 5689.20sq. m area has already been developed with 1100 number of trees and further 6894.90 sq m over additional land of area is proposed to be developed with 1400 number of trees around periphery of the unit and in open space. Green cover as lawn has also been developed within the premises.



- (xxii) The total fixed cost of the project is INR 45 Crore as per the company gross book value.
- (xxiii) As part of CER activity PP has proposed to provide Infrastructure development at School in nearby villagers & Skill Development Programmes for youths with budgetary provision of **Rs.45 lacs**.

PROPOSED BUDGET FOR CER			
S. no	Need Identified For CSR Plan	Activities	Budgetary Provision (Rs. In lacs)
1	Infrastructure developmental activities, Skill Development Programmes for youths as per the requirement of the Unit Health support services and Other needbase activities ( Capital nature) in consideration and coordination with district administration	At villages Mandiouda, Methwada, Khera, Sagor, Chandra, Betma, Silotiya, Bagoda, Tigriya Chhota and district Dhar	Rs 45 Lacs
Additional Project Cost : Rs 4500 Lacs @ 1% of additional cost for brown filed project as per OM of MoEF&CC dated 1 <sup>st</sup> May 2018			

Based on the information submitted at Para i to xxiii above and others, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 635<sup>nd</sup> meeting held on 31.08.2020 and decided to accept the recommendations of 450<sup>th</sup> SEAC meeting held on dtd. 13.08.20

Hence, Prior Environmental Clearance is accorded under the provisions of EIA notification dtd. 14<sup>th</sup> September 2006 & its amendments for the Proposed Capacity expansion in Sulfonated Products from 36000 TPA to 125000 TPA, Specialty Chemical Product - 50000 TPA and Intermittent Product - 1900 TPA at Plot No. 57, 58, 60, 61, 62, 62-A, 63, 64, S-3/1, Pithampur Industrial Area, Sector-3, Sagore Village, Pithampur, Dist. Dhar, (MP) Land area – 38133.76 sq.m.(Existing- 17240.00 sq.m. Proposed – 20893.76 sq.m). by M/s Aarti Surfactants Limited, 71, Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund West, Mumbai - 400080, subject to the compliance of the Standard Conditions and the following additional Specific Conditions as recommended by SEIAA & SEAC in its meetings.

#### A. Specific Conditions as recommended by SEIAA

1. The entire demand of fresh water should be met through MPAKVN as committed in agreement dtd. 07.03.17 and there should no extraction of ground water .
2. Water conservation scheme including rain water harvesting measures to augment ground water resources shall be implemented so as to collect and reuse the entire rainwater harvested as a supplement to fresh water
3. PP should submit compliance report after receiving from RO MoEF & CC, Bhopal as suggested by authority.
4. **Waste water:**
  - (a) PP should ensure "Zero effluent discharge" from the unit by 100% recycling. The water softening reject, boiler blow down reject and cooling blow down will be treated in ETP. Further treated waste water will go through the RO and finally re used / recycled in the process and unused waste water evaporates in MEE.
  - (b) RO and MEE should be provided for treatment of high COD waste streams and only in case of emergency/breakdown high COD wastes should be disposed off through CTSDf, Pithampur, Dhar.



- (c) The proponent shall operate the ETP efficient and continuously. The treated effluent of ETP shall be utilized for gardening after achieve the quality of treated effluent standards prescribe the CPCB
- 5. For Air Pollution:**
- PP should ensure install Bag house in stack for control of air pollution and stack height as proposed in the EIA/ EMP.
  - The performance of air pollution control system should be regularly monitored and maintained.
  - PP should ensure regular Stack monitoring & Ambient air quality monitoring and should be carried out as per the guidelines/norms of MPPCB/CPCB.
  - In plant control measures for checking fugitive emission from all the vulnerable sources shall be provided. Fugitive emission shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator/bag filters and water sprinkling system.
  - Dust suppression system including water sprinkler system/ fogging arrangement shall be provided at loading and unloading areas to control dust emission.
  - Fugitive emission in the work zone environment, product, raw material storage areas etc. shall be regularly monitored.
  - High efficient four stage ventury scrubber should be provided.
  - Transportation of raw material and finished goods should be carried out in covered trucks.
  - Company shall carry out the HAZOP study and report shall be submitted to ministry MoEF & CC Regional Office, Bhopal.
  - For control of fugitive emission and VOCs following steps should be followed:-
    - Chilled brine circulation system shall be provided and it should be ensured that the solvent recovery efficiency is not be less than 95%.
    - Reactor and solvent handling pump shall be provided with mechanical seal to prevent leakage.
    - Closed handling system should be provided for chemicals.
    - System of leak detection and repair of pump/pipeline should be based on preventive maintenance.
    - Solvent shall be taken from underground storage tank to reactor through closed pipeline. Storage tank shall be vented through trap receiver and condenser operated on chilled water.
- 6. Hazardous Waste Management:**
- As proposed above, PP should ensure disposal of hazardous waste regularly and there should be no dumping of these materials in the premises/outside.
  - PP should obtain Renewal of authorization regularly from MPPCB for collection storage and disposal of hazardous waste (Management, handling & transboundary Movement) Rules 2008 and its amendments. Membership of the TSDF should be obtained for hazardous waste disposal.
  - Hazardous chemicals should be stored in sealed tanks, drums etc. Flame arrestors shall be provided on tanks. To avoid the spillage from processing unit, Industry shall provide fully mechanized filling and packaging operation unit.
  - Ensure the storage and handling of all the chemicals in a proper and safe manner to avoid any spillages and also to prevent runoff contamination in monsoon.
  - PP should renew the Membership to CHW-TSDF-Pithampur for disposal of Hazardous waste.
- 7. Green Belt Development:**



- (a) PP should ensure plantation as proposed 6894.90 sq m over additional land of area to be developed with 1400 number of trees around periphery of the unit and in open space. Green cover as lawn has also been developed within the premises. Plantation in the project area of indigenous local varieties like Neem, Peepal, Kadam and Kachnaar.
  - (b) Every effort should be made to protect the existing trees on the plot.
  - (c) Green area including thick green-belt shall be developed in at least 33% of the plot area to mitigate the effect of fugitive emissions all around the plant in consultation with the forest department as per the guidelines of CPCB.
  - (d) PP should compliance the conditions lay down by the MPAKVN (Indore) Ltd. (letter dtd. 27.09.2018) for development of green belt.
8. PP should obtain NOC /approval from competent authority for health & safety measure, Onsite & Offsite disaster management, and Risk management plan before commencing the operation of the unit.
  9. PP should ensure installation of photovoltaic cells (solar energy) for lighting in common areas, LED light fixtures and energy efficient equipments.
  10. PP should ensure the implementation of CER activities to the extent of Rs. 45 as committed during presentation to the extent on regular basis in consultation with the Gram Panchayat of the receptive village or district administration of the respective project area such as villages Mandiouda, Methwada, Khera, Sagor, Chandra, Betma, Silotiya, Bagoda, Tigriya Chhota and district Dhar .
  11. 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.
  12. PP should ensure to submit half yearly compliance report and CER activity report with photographs of plantation in MP-SEIAA. If PP is failed to upload or submit two consecutive half yearly compliance reports of EC conditions to concerned authority (SEIAA and Regional Office, MoEF&CC, GoI, Bhopal) than prior environmental clearance issued to PP will automatically be treated as cancelled/ revoked as per OM No. 930/SEIAA/2019 dated 30.05.2019 issued by MPSEIAA.

#### **B. Specific Conditions as recommended by SEAC**

##### **(A) Statutory compliance**

- i. The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the Madhya Pradesh Pollution Control Board (MPPCB).
- ii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time & permission of competent authority if ant tree falling is to be carried out.
- iii. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

##### **(B) Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to MPPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.



- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- iii. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Sulphur content should not exceed 0.5% in the coal / / Bio Briquette for use in coal// Bio Briquette fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions from the boiler, DG set and scrubber shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- iv. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- v. The DG sets (DG Set\* -2X X1010 & 1 X 1500 KVA & 2 x 1010 KVA ) shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.
- vi. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- vii. 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.

**(C) Water quality monitoring and preservation**

- i. The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- ii. As already committed by the project proponent Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- iii. The capacity of existing ETP is 45 KLD and blow downs from cooling towers, boiler, Softener regeneration, Vacuum pump from sulphonation plant is approx 27.24 KL is coming to existing ETP of 45 KLD. The treated water from ETP is passed through the RO system and 17.6 KLD of permeate is recycled back in to cooling process whereas remaining is treated with MEE system. The scrubbed water (5 KLD) and reject from RO water (4.24 KLD) directly goes to MEE (10 KLD) followed by ATFD (1.5 KLD).
- iv. The capacity of Proposed ETP is 30 KLD and blow downs from cooling towers, boiler, process, Vacuum pump, floor washing from specialty chemical plant is approx 16.12 KL is coming to proposed ETP of 30 KLD. The treated water from ETP (15.122 KLD) is passed through the RO system and 9.6 KLD of permeate is recycled back in to cooling process whereas remaining rejects is treated with MEE system. The scrubbed water (2.5 KLD) and reject from RO water (3.024 KLD) directly goes to MEE (10 KLD) followed by ATFD (1.5KLD).
- v. Adhere to 'Zero Liquid Discharge and No industrial effluent from the unit shall be discharged outside the plant premises. PP should also install Internet Protocol PTZ camera with night vision facility along with minimum 05X zoom and data connectivity must be provided to the MPPCB's server for remote operations.



- vi. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the Madhya Pradesh Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- vii. The water requirement for the existing project is 380KL per day which will be increased to approx. 703 KLD after expansion and after recycling and reuse, total fresh water requirement for the project after expansion will be approx. 323 KLD, which will be sourced from AKVN.
- viii. Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- ix. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- x. Dedicated power supply shall be ensured for uninterrupted operations of treatment systems.

**(D) Noise monitoring and prevention**

- i. Acoustic enclosure shall be provided to DG ((DG Set\* -2X X1010 & 1 X 1500 KVA & 2 x 1010 KVA) set for controlling the noise pollution.
- ii. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- iii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

**(E) Energy Conservation measures**

- i. The energy sources for lighting purposes shall preferably be LED based.
- ii. The total power requirements for project will be 5540 KVA. The power will be supplied by Madhya Pradesh Electricity Board. Furnace Oil Consumption 1160 lit/hours, whereas the coal consumption will be 625 kg/hr for both boiler of 3TPH and 2 TPH. (Source Indigeneous) and Natural Gas - 248 SM3/hr for 3.5 TPH

**(F) Waste management**

- i. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- ii. As proposed 95% solvent recovery shall be achieved and recovered solvent shall be reused in the process.
- iii. Hazardous wastes such as spent solvents, organic incinerable wastes/residues, used filter bags, packaging materials, rejected/expired raw materials and off specification/ rejected finished products from the manufacturing plants shall be directly sent to CTSDf, Dhar.



- iv. The Fly ash generated from boilers shall be stored in silos and disposed of through cement manufacturers by bulkers / closed containers and should comply with Fly Ash Utilization Notification, 1999 and as amended subsequently.
- v. If any Flammable, ignitable, reactive and non-compatible wastes should be stored separately and never should be stored in the same storage shed.
- vi. Automatic smoke, heat detection system should be provided in the sheds. Adequate fire fighting systems should be provided for the storage area.
- vii. In order to have appropriate measures to prevent percolation of spills, leaks etc. to the soil and ground water, the storage area should be provided with concrete floor of inert material or steel sheet depending on the characteristics of waste handled and the floor must be structurally sound and chemically compatible with wastes.
- viii. Measures should be taken to prevent entry of runoff into the storage area. The Storage area shall be designed in such a way that the floor level is at least 150 mm above the maximum flood level.
- ix. The storage area floor should be provided with secondary containment such as proper slopes as well as collection pit so as to collect wash water and the leakages/spills etc.
- x. Storage areas should be provided with adequate number of spill kits at suitable locations. The spill kits should be provided with compatible sorbent material in adequate quantity.
- xi. Recent MSDS of all the chemicals used in the plant be displayed at appropriate places.
- xii. Proper fire fighting arrangements in consultation with the fire department should be provided against fire incident.
- xiii. All the storage tanks of raw materials/products shall be fitted with appropriate controls to avoid any spillage / leakage. Bund/dyke walls of suitable height shall be provided to the storage tanks. Closed handling system of chemicals shall be provided.
- xiv. Log-books shall be maintained for disposal of all types hazardous wastes and shall be submitted with the compliance report.
- xv. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- xvi. The company shall undertake waste minimization measures as below:
  - 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 material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - d. Use of Close Feed system into batch reactors.
  - e. Venting equipment through vapour recovery system.
  - f. Use of high pressure hoses for equipment cleaning to reduce wastewater generation.

**(G) Green Belt**

- i. The green belt of 5-10 m width shall be developed 6894.90 sq. meter within plant and 1400 along the road in the project area, mainly along the plant periphery, in downward wind direction and along road sides etc. Selection of plant species shall be as per the CPCB guide lines in consultation with the State Forest Department.
- ii. Peripheral plantation all around the project boundary shall be carried out using tall saplings of minimum 2 meters height of species which are fast growing with thick



canopy cover preferably of perennial green nature. As proposed 1400 no of plants in one year's shall be planted. PP will also make necessary arrangements for the causality replacement and maintenance of the plants.

**(H) Safety, Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- iii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iv. 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 imparted.
- v. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

**(I) Corporate Environment Responsibility**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/ forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and or shareholders /stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Fund should be exclusively earmarked for the implementation of EMP through a separate bank account.
- v. The proposed EMP cost is Rs. 292.60 Lakhs as capital and Rs 8.92 Lacs + Rs 40 Lacs / year as recurring cost.
- vi. Under CER activity, Rs. 45 Lakhs as capital costs has proposed for different activities. PP shall comply with the commitment of providing infrastructure facility at school.



- vii. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- viii. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**(J) Miscellaneous**

- i. PP shall be responsible for discrepancy (if any) in the submissions made by the PP to SEAC & SEIAA.
- ii. The project authorities must strictly adhere to the stipulations made by the MP Pollution Control Board and the State Government.
- iii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- iv. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- v. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the 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 and any other orders passed by the Hon'ble Supreme Court of India/ High Courts and any other Court of Law relating to the subject matter.

**Standard Conditions:**

- 1. The company shall carry out the HAZOP study and the report shall be submitted to Regional Office of MoEF, GoI at Bhopal.
- 2. The company shall comply with the CREP guidelines prepared by MPPCB for Bulk Drug Plants.
- 3. During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixings of accidental spillages with domestic waste and storm drains.
- 4. Industry should get the Emergency Disaster Management Plan approved by DTHS and should also comply with the provisions made in Public Liability Insurance Act, 1991.
- 5. All parameters listed in Environmental Monitoring Plan approved by SEAC must be monitored at approved locations and frequencies.
- 6. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Regional office of the Ministry of Environment and Forest, Bhopal and MP PCB.



7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained (as and when applicable), by the project proponent from the respective competent authorities.
8. The Regional Office, MoEF, GoI, Bhopal and MP PCB shall monitor compliance of the stipulated conditions. A complete set of documents including Environment Impact Assessment Report, Environmental Management Plan, should be given to Regional Office, MoEF, GoI, Bhopal and MP PCB.
9. A copy of the environmental clearance shall be submitted by the Project Proponent to the Heads of the Local Bodies, Panchayat and Municipal Bodies as applicable in addition to the concerned Government Departments / organization responsible for controlling the proposed projects who in turn has to display the same for 30 days from the date of receipt.
10. The project proponent has to strictly follow directions/guideline issued by the MoEF, GoI, CPCB and other Govt. agencies from time to time.
11. The Project Proponent shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the State Level Environment Impact Assessment Authority (SEIAA) website at [www.mpseiaa.nic.in](http://www.mpseiaa.nic.in) and a copy of the same shall be forwarded to the Regional Office, MoEF, GoI, Bhopal and MP PCB.
12. The Project Proponent has to upload soft copy of half yearly compliance report of the stipulated prior environmental clearance terms and conditions on 1st June and 1st December of each calendar year on MoEF & CC web portal - <http://www.environmentclearance.nic.in/> or <http://www.efclearance.nic.in/> and submit hard copy of compliance report of the stipulated prior environmental clearance terms and conditions to the Regulatory Authority also
13. The SEIAA of M.P. reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
14. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
15. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
16. 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.



17. Any appeal against this prior environmental clearance shall lie with the Green Tribunal, if necessary, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
18. The prior Environmental Clearance granted for the project is valid for a period of seven years as per EIA notification dtd. 14.09.2006 & its amendments.
19. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
20. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the Regional Office of MoEF.

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Endt No. / SEIAA/ 2020

Dated 14.10.2020

(Tanvi Sundriyal)  
Member Secretary

Copy to:-

- (1). Principal Secretary, Urban Development & Environment Deptt. 3<sup>rd</sup> Floor, Mantralaya Vallabh Bhawan, Bhopal.
- (2). Secretary, SEAC, Research and Development Wing Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony Bhopal-462016.
- (3). Member Secretary, Madhya Pradesh Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal-462016.
- (4). The Collector, District Indore, M.P.
- (5). Managing Director, M.P. Audyogik Kendra Vikas Nigam (Indore) Limited, Free Press House First Floor, 3/54 Press Complex, Agra-Mumbai Highway Indore (M.P).
- (6). Director, I.A. Division, Monitoring Cell, MoEF, GoI, Ministry of Environment & Forest Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi - 110 003
- (7). Director (S), Regional office of the MOEF, (Western Region), Kendriya Paryavaran Bhawan, Link Road No. 3, Ravi Shankar Nagar, Bhopal-462016.
- (8). Guard file.

(Dr. Sanjeev Sachdev)  
Officer-in-Charge