



Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), Madhya Pradesh)

To,

The Proprietor
BROMOS CHEMICALS
181, AKVN Industrial Area, Meghnagar Dist. Jhabua -457779

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/MP/IND3/239965/2021 dated 07 Dec 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC22B021MP152813 |
| 2. File No. | 8853/2021 |
| 3. Project Type | Expansion |
| 4. Category | B2 |
| 5. Project/Activity including Schedule No. | 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk |
| 6. Name of Project | Manufacturing of API-Bulk Drug & Intermediates, Total proposed production capacity after this expansion: of Liquid Bromine 888 MT/Anum and Total Proposed production capacity: of API/Bulk Drug & Intermediates 600 MT/Anum |
| 7. Name of Company/Organization | BROMOS CHEMICALS |
| 8. Location of Project | Madhya Pradesh |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 07/01/2022

(e-signed)
Shriman Shukla
Member Secretary
SEIAA - (Madhya Pradesh)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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Ref: Proposal No. SIA/MP/IND3/239965/2021, Case No 8853/2021: Prior Environment Clearance for Manufacturing of API-Bulk Drug & Intermediates (Total proposed production capacity after this expansion: of Liquid Bromine 888 MT/Anum and Total Proposed production capacity: of API/Bulk Drug & Intermediates 600 MT/Anum) at 181, 182, 182A, 183A, Meghnagar Industrial Area, AKVN, Tehsil - Meghnagar, Dist. Jhabua, (MP) Total land area- 8221.11 sqmtbyM/s Bromos Chemicals through Prop. Shri Ajabir Singh, 181, AKVN Industrial Area, Meghnagar, Dist. Jhabua, MP - 457779 Email: bromoschemicals@gmail.com Evt. Consultant: Creative Enviro Services

With reference to 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 14th September 2006 and its amendments, on the basis of the mandatory documents enclosed with the application viz., Form -2, pre-feasibility report, EIA/EMP report, ppt and additional clarifications furnished in response to the 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 Manufacturing of API-Bulk Drug & Intermediates and expansion of Liquid Bromine at 181, 182, 182A, 183A, Meghnagar Industrial Area, AKVN, Tehsil - Meghnagar, Dist. Jhabua, (MP). by project proponent M/s Bromos Chemicals through Prop. Shri Ajabir Singh, 181, AKVN Industrial Area, Meghnagar, Dist. Jhabua,
- ii. Project site is located between Latitude 22°54'53.86"N and Longitude 74°33'38.26"E
- iii. Unit is currently engaged in manufacturing of Liquid Bromine and having the valid Consent (CCA) order (Consent No: AW-50030 & H-50031) issued by Madhya Pradesh Pollution Control Board (MPPCB) for production of the existing product.
- iv. Existing production capacity of Liquid Bromine is 600 MT/Anum. Proposed production capacity of Liquid Bromine 288 MT/Annum and proposed production capacity of API/Bulk Drug & Intermediates is 600 MT/Annum. Total proposed production capacity after expansion for Liquid Bromine will be 888 MT/Anum and total proposed production capacity of API/Bulk Drug & Intermediates will be 600 MT/Annum.
- v. The list of existing and proposed products are as follows:-

Sr. No.	Product Name	CAS No.	Quantity MT/Month			End Use
			Existing (as per CCA)	Proposed	Total After Expansion	
1	Bromine (liquid)*	7726-95-6	50	24	74	API Intermediate N-Butyl Bromide & N-Propyl Bromide used to treat myasthenia gravis (API)
2	N-Butyl Bromide (NBBR) and/or	109-65-9	0	50	50	API Intermediate Tetra Butyl Ammonium Bromide Hyoscine Butyl Bromide (API) antispasmodic medicine
3	N-Propyl Bromide (NPBR)	106-94-5	0			API Intermediate manufacturing as

Sr. No.	Product Name	CAS No.	Quantity MT/Month			End Use
			Existing (as per CCA)	Proposed	Total After Expansion	
	and/ or					Reactant and Intermediate synthesis of Sodium Valproate used to treat epilepsy and bipolar disorder
4	Bromo Benzene	108-86-1	0			API Intermediate Benzoic Acid (API) M. Phenoxy Benzaldehyde
5	4 Bromo Methyl - 2 Cynobipheneyl Or / and	114772-54-2	0			API / Drug Intermediate Irbesartan, Lasartan, Valsartan
6	Para Bromofloro Benzene	460-00-4	0			API / Drug Intermediate Fluticasone propionate API and M. Bromo Nitro FloroBenzene
7	Para Nitro Benzyl Bromide	100-11-8	0			API / Drug Intermediate 4(Murpholinomethyl) Aniline
8	1, 4 Dibromo Butane Or/and	110-52-1	0			API / Drug Intermediate Aripirazole(API)
9	Decyl Bromide	112-29-8	0			API/Drug aripirazole intermediate 1 Decyl 2 3 dimethylimidazoli um Bromide
10	Ethyl 2 Bromo Butyrate (E2BB)	533-68-6	0			API/Drug intermediate Levetiracetam
11	Ethyl - 2 Bromo Propionate (E2BP)	535-11-5	0			API/Drug intermediate Ethyl 5-Bromo - 3 (2 Pyridyl), Indol 2 Carboxylate (Naproxine)
12	Bromo Acetaldehyde Dimethylacetal and 2Bromomethyl (1,3) dioxolane Or/and	7252-83-7 4360-63-8	0			API/Drug intermediate Use in Doxofilline
13	2 Propyl Pentanoic Acid	99-66-1	0			API/Drug intermediate Mfg. of Valproic Acid
14	Meta Bromo Anisole	2398-37-0	0			API/Drug intermediate Tramadol Hydrochloride
15	Tetra Butyl Ammonium Bromide	1643-9-19-2	0			API/Drug intermediate Phase Transfer Catalyst Gliclazide (API)

Sr. No.	Product Name	CAS No.	Quantity MT/Month			End Use
			Existing (as per CCA)	Proposed	Total After Expansion	
16	Tri Ethyl Benzyl Ammonium Chloride	56-37-1	0			API/Drug intermediate
17	4-Amino 1,2,4-Triazole	584-13-4	0			API/Drug intermediate Fluconazole (API)
18	5-Chloro Salicylic Acid	321-14-2	0			API/Drug intermediate Glibenclamide
19	Pyridine Sulphur Trioxide	26412-87-3	0			API/Drug intermediate Anticoagulation
20	Benzyl Bromide	100-39-0	0			API/Drug intermediate 3benzyl 1,2 dimethyl imidazoliumbromide, Donepezil hydrochloride (Anti-Alzheimer's disease)
21	2,4-Dichloropyrimidine	3934-20-1	0			API/Drug intermediate 4-aryl 5 Pyrimidinylimidazoles (inflammatory diseases)
22	4-Hydroxy Benzyl Alcohol	623-05-2	0			API/Drug intermediate Bisoprolol
23	Sodium Valporate	1069-66-5	0			API/Drug intermediate Psychiatry Drugs Intermediate
24	2-Methyl 2,4-Pentanediol	107-41-5	0			API/Drug intermediate Chloralodol API (Hypnotic)
25	2-Butyl 4-Chloro 5-Formylimidazole	83857-96-9	0			API/Drug intermediate Drugs product or veterinary, animal or pet
26	Lithium Bromide	7550-35-8	0			API/Drug intermediate Clobetazole propionate
27	5-difluoromethoxy-2{3,4-dimethoxy-2-pyridinyl)methyl } thio} 1H benzimidazole	102625-64-9	0			Drug intermediate/ Pantoprazole (API)
28	2-Ethylbutyl acetate	10031-87-5	0			Pharmaceutical intermediate
29	Isobutyl nitrite	542-56-3	0			Drug intermediate
30	7-4-bromo butoxy)-3,4-dihydro carbostyry	129722-34-5	0			Aripiprazole drug intermediate
31	Bromo OTBN (Valsartan)	114772-54-2	0			Intermediate of Losartan and To treat hypertension
32	Methyl -2-Bromohexanoate	5445-19-2	0			Intermediate of AmiodaroneHCl and it

Sr. No.	Product Name	CAS No.	Quantity MT/Month			End Use
			Existing (as per CCA)	Proposed	Total After Expansion	
						is used to treat certain types of serious (possibly fatal) irregular heartbeat (such as persistent ventricular fibrillation/tachycardia) It is used to restore normal heart rhythm and maintain a regular, steady heartbeat. Amiodarone is known as an antiarrhythmic drug.
33	2-Bromo-4'-Methylacetophenone	619-41-0	0			Intermediate of ZolpidemPyrovalerone and it is used for the short term treatment of sleeping problems
34	Isosorbide	652-67-5	0			API/Drug intermediate Drug Intermediate IsosorbideDinitrate Coronary vasodilator
35	3-methoxy thiophenol	15570-12-4	0			API/Drug intermediate Clopidogrel& other drugs
36	Ethyl Tri Phenyl Phosphium Bromide	603-35-0	0			API/Drug intermediate Phase transfer catalyst
37	6- methyl heptyl bromide	629-04-9	0			API/Drug intermediate Retiferol derivatives
38	Hydro Bromic Acid (HBr)*	10035-10-6	0			Inorganic Product
39	Potassium Bromide*	2139626	0			Inorganic Product
40	Ammonium Bromide*	12124-97-9	0			Inorganic Product
41	Sodium Bromide*	7647-15-6	0			Inorganic Product
42	Calcium Bromide*	22208-43-7	0			Inorganic Product
43	Copper bromide*	7787-70-4	0			Inorganic Product
	Total (MT/Month)		50	74	124	

- vi. 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. In the context of pandemic COVID -19, Gol'sMoEF&CC issued Notification dtd. 27.03.2020 and further amendments dtd.16.07.21 for considering the API & Bulk drug Projects as B-2 category.

- vii. There is no interstate boundary within 05 km and no National park, Sanctuary and Eco-sensitive areas within 05 km of the project area hence General condition are not attracted.
- viii. The case was discussed in 535thSEAC meeting dated 16.12.2021 and is recommended for grant of prior EC subject to special conditions.
- ix. The project occupies a plot Area of 8221.11 sqm of land. PP has submitted letter of intent dtd. 03.02.12, 28.05.13&13.04.21 issued by Madhya Pradesh Industrial Development Corporation (MPIDC) for the allotment of the plot number 181, 182, 182A, 183B. The land use breakup of the project area is as follows:-

S. No.	Particular/Purpose	Existing (Sq. M.)	Proposed	Total Existing + Proposed
1.	Build up Area Production Block	137.62	602	739.62
2.	Utility and auxiliary	495.08	279.70	774.78
3.	Raw Material and FG Store	402.745	300	702.745
4.	Office block and QA QC	75.0	56.0	131.00
5.	ETP and MEE	119.10	84.10	203.20
6.	Green belt	1072.40	1394.0	1896.90
7.	Internal Road	801.33	824.5	1625.83
	Total used area	3103.28	3540.30	6643.58
8.	Open land	5117.83	1577.53	1577.53
	Total land	8221.11		8221.11

- x. The major facilities will be Boiler, MEE, Reactors, Cooling Towers, Effluent Treatment Plant (ETP), and R.O Plant. Facilities like administrative office, parking and greenbelt/plantation will also be developed as per plan/requirement. The treated water will be used for cooling towers, floor washing and gardening/green belt.
- xi. Total raw water requirement for the proposed project will be 65.5 KLD fresh and after recycling of 48 KLD, the fresh water requirement will be 17.5 KLD. The water will be sourced from MPIDC, (letter dtd. 23.09.21) Meghanagar Jhabua (MP)
- xii. The total wastewater generation from the domestic source will be 6.00 KLD and industrial wastewater generation will be 43.2 KLD. Process effluent i.e. 29.8 KLD will be segregated into concentrated effluent stream (9.8 KLD) and normal effluent stream (20 KLD).
- xiii. Total Industrial Effluent (43.2 KLD) will be generated. Out of which high COD/TDS process effluent (10 KLD) will be sent to solvent stripper and thereafter sent to MEE followed by ATFD and bottom salt will be disposed to a designated TSDF Site. The remaining low TDS/ COD effluent (33.2 KLD), [consisting, low COD/TDS effluent (20 KLD), Boiler blow down (1 KLD), Cooling Purge (1.2 KLD), APCM (1 KLD), Washing (5 KLD), DM Reject (5 KLD)] along Domestic Effluent (6 KLD) will be mixed with industrial effluent and treated in an on-site ETP followed by RO system. The treated effluent (48 KLD) will be reused/ recycled and the RO reject (8.6 KLD) will be sent to above stated MEE followed by ATFD. Thus, unit will maintain Zero discharge.
- xiv. Various mitigation measures shall be adopted for water and wastewater management is mentioned below:
- Storm water drainage system shall be developed and shall be maintained preciously to prevent the flow of silt and other contaminant outside of the site

- The entire trade effluent will be divided into two streams i.e. Stream-I (high concentrated streams) and Stream-II (low concentrated stream). Both the streams will be treated in well-designed ETP, RO and MEE.
 - Low COD /TDS wastewater (including process effluent, washing, blow downs from cooling towers, boiler, scrubber, Softener regeneration) will be sent to ETP followed by RO. Treated water will be reused.
 - High COD / TDS wastewater (consisting process effluent & RO reject) will be sent to MEE/ATFD. Condensate will be reused and bottom salt will be sent to a common TSDF site.
 - Utilization of treated wastewater in toilet flushing, greenbelt development and dust suppression
 - A drain along the boundary wall shall be made, which will be connected proposed settling tank to protect the flow of contaminant towards nearby area
 - Unit will install Multi Effective Evaporator, with treatment capacity of 02 KL/Hr. The treated water will be used for cooling towers, floor washing and gardening/green belt.
 - Storm water drainage system will be developed for unit and shall be maintained preciously to prevent the flow of silt and other contaminant outside of the site.
 - Blow downs from cooling towers, boiler, ACF/MGF Cleaning, Softener regeneration, Vacuum pump will go to ETP
 - Water harvesting structure need to provide further strength with proper maintenance
 - ZERO effluent discharge has been implemented, and after expansion, the same shall be maintained.
- xv. Solid waste generated during the manufacturing process and wastewater treatment process is mainly sludge and will be disposed at authorized TSDF facility, as per Hazardous and Other Waste (Management & Transboundary Movement) Rules, 2008 (Amendment 2016). PP has submitted he will take authorization Under Hazardous Waste (Management, Handling & Transboundary Movement), Rules.
- xvi. Power be sourced will from existing line of 'Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company'. The total requirement will be 150 KW. In case of power failure, D.G. of 82 KVA and 62.5 KVA will be used as a backup power source.
- xvii. For control of air pollution PP has proposed following measures:-
- All tankers shall be PUC Certified from time to time.
 - DG Sets will be operated during power failure.
 - Greenbelt will be developed at the facility to mitigate the impact of pollution.
 - Use of raw materials will have VOC emissions, which will be controlled by taking the following measures:
 - Provision for immediate isolation of such equipment, in case of a leakage will be made. All the mechanical seals of pumps and reactor will be monitored and maintain periodically as per preventive maintenance schedule.
 - Monitor VOC's through portable VOC's meter.
 - Closed handling and charging system shall be provided for chemicals.
 - Pumps shall be provided with mechanical seals to prevent leakages.
 - Flammable gas detectors shall be installed in the appropriate locations.
 - Venting equipment having toxic / flammable material shall have vapor recovery/scrubbing 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. Interlock with blower shall be provided.

Sr. No.	Stack/Vent attached to	Stack Height (meter)	Stack Diameter (meter)	Fuel name	Type of Emission	APCM
Existing						
1	Boiler - 1 (1 TPH)	30	0.3	Agro Waste /wood 5 Kg/Hour	PM SO ₂ ,NO _x	Adequate Stack Height and Bag Filter
2	D.G. Set* (62.5 KVA)	3	0.1	HSD 35lit/hour	As per CPCB Guidelines	Adequate Stack Height Acoustic enclosure
Proposed						
3	D.G. Set* (82 KVA)	5	0.1	HSD (96 Liter/Day)	PM SO ₂ NO _x	Adequate Stack Height
4	Boiler - 1 (2 TPH)	30	0.3	Agro Waste /wood, TPD, 6	PM SO ₂ ,NO _x	Adequate Stack Height and Bag Filter
5	Thermopack Boiler (2 Lakh k Cal/Hr.)	12	0.15	HSD or Furnace Oil	PM SO ₂ NO _x	Adequate Stack Height

- xviii. PP has proposed plantation in 2466 sq.m. i.e. 30% of the total area by planting 400 numbers of trees. The green belt of 5-10 m width will be developed mainly along the periphery and road side. Around Admin Block, lawn and around boundary limit (backside of the site). 250 number of plants shall be around the periphery at outside of the unit subject to allotment of land for plantation by AKVN
- xix. The total fixed cost of the project is estimated as INR 800Lacs. The total capital cost for environmental measures is kept as Rs. 135.25 Lacs (capital cost) is allocated for environmental management systems and the annual recurring cost for the same is Rs 36.55 Lacs
- xx. PP has proposed physical targets as per the needs of the local population under Corporate Environment Responsibility (CER) with respect to Project Cost. i.e 12.0 lakh as follows:

S. N.	Need Identified For CER Plan	Activities	Budgetary Provision In Lacs (Capital)
1		Vocational Training to 50 youth wrt to nature of industries in Meghnagar Industrial area for having future employment opportunity in coordination with ITI (50 X Rs 2000 X 12)	Rs. 12 Lac
			Rs 12 Lacs

Based on the information submitted at Para i to xx above and others, the State Level Environment Impact Assessment Authority (SEIAA) considered the case in its 699 meeting held on 29.12.2021 and decided to accept the recommendations of 535th SEAC meeting held on dated 16.12.2021.

Hence, Prior Environmental Clearance is accorded under the provisions of EIA Notification dtd. 14th September 2006 & its amendments to the proposed Manufacturing of API-Bulk Drug & Intermediates (Total proposed production capacity after this expansion: of Liquid Bromine 888 MT/Anum and Total Proposed production capacity: of API/Bulk Drug & Intermediates 600 MT/Anum) at 181, 182, 182A, 183A, Meghnagar Industrial Area, AKVN,

Tehsil - Meghnagar, Dist. Jhabua, (MP) Total land area- 8221.11 sq.mt by M/s Bromos Chemicals through Prop. Shri Ajabir Singh, 181, AKVN Industrial Area, Meghnagar, Dist. Jhabua, MP - 457779 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 MPIDC, (letter dtd. 23.09.21) Meghnagar, Jhabua (MP). Fresh water should not be used for gardening purpose.

2. 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.

3. For Air Pollution:

- (a) PP should ensure regular Stack monitoring & Ambient air quality monitoring and should be carried out as per the guidelines/norms of MPPCB/CPCB.
- (b) 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.
- (c) Company shall carry out the HAZOP study and report shall be submitted to ministry MoEF& CC Regional Office, Bhopal.
- (d) 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/CNG for use in coal/CNG fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions from the boiler, DG set shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (e) 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.
 - 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.

4. Hazardous Waste Management:

- (a) As proposed above, PP should ensure disposal of hazardous waste regularly and there should be no dumping of these materials in the premises/outside.
- (b) 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 obtain for hazardous waste disposal.
- (c) 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.

5. Green Belt Development:

- (a) PP should ensure plantation as proposed 2466 sq.m. with 400 number of trees 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 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.
6. PP should ensure the implementation of CER activities to the extent of Rs. 12lakh incurred on skill training development programme.
 7. 1 Rain Water Harvesting Recharge Pit shall be provided for ground water recharging as per the CGWB norms. The PP shall install Digital water level recorder for monitoring the water recharge and carry out quarterly maintenance and cleaning of 01 RWH pit.
 8. Total quantity of runoff water generated and green belt area should be collected in underground tank & used for process in plant to minimize fresh water requirement.
 9. All other conditions as laid in the consents of MPPCB shall be applicable.
 10. PP should ensure to submit half yearly compliance 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

I 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.
- 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.

II. 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 for use in coal fired boilers to control particulate emissions within permissible limits (if 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 (62.5 KVA and 82 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.

III 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 High COD/TDS process effluent (9.8 KLD) and RO Reject will be treated through MEE/ ATFD. The MEE condensates will be recycled/ reused and MEE bottom will be sent to TSDF site
- iv. The Low COD/TDS effluent, [20KLD]] will be treated in an on-site ETP followed by RO . The treated effluent will be reused/ recycled.
- 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. Total fresh water requirement shall not exceed 17.5 KLD and AKVN water supply shall be used
- 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.

IV Noise monitoring and prevention

- i. Acoustic enclosure shall be provided to DG (62.5 KVA and 82 KVA 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.

V Energy Conservation measures

- i. The energy sources for lighting purposes shall preferably be LED based.
- ii. The total power requirements for project will be 150 KW . The power will be supplied by Madhya Pradesh Electricity Board. Bio- Briquette shall be used in boiler of 1TPH and 2 TPH

VI 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, 92-95% 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 clearing to reduce wastewater generation.

VII Green Belt

- i. The green belt of 5-10 m width shall be developed 2466 sq. meter within and periphery of plant (600 no), 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 2000 no of plants of fruit species like Kathal, guawa, munga etc as per choice of villagers shall be distributed to villagers . PP will also make necessary arrangements for the causality replacement and maintenance of the plants.

VIII 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.

IX EMP & Corporate Environment Responsibility

- i. The company shall have a well laid down environmental policy duly approved 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.
- ii. 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.
- iii. The proposed EMP cost is Rs. 135.25 Lakhs as capital and 36.55 Lakhs /year as recurring cost.
- iv. The proposed CER cost will be 12 Lakhs which will be incurred on skill training development programme.
- v. 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.
- vi. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X 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 (if applicable) 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.
2. The company shall carry out the HAZOP study and the report shall be submitted to Regional Office of MoEF, Gol at Bhopal.
3. The company shall comply with the CREP guidelines prepared by MPPCB for Bulk Drug Plants.
4. During transfer of materials, spillages shall be avoided and gulland drains be constructed to avoid mixings of accidental spillages with domestic waste and storm drains.
5. Industry should get the Emergency Disaster Management Plan approved by DTSH and should also comply with the provisions made in Public Liability Insurance Act, 1991.
6. All parameters listed in Environmental Monitoring Plan approved by SEAC must be monitored at approved locations and frequencies.
7. 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.
8. 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.
9. The Regional Office, MoEF, Gol, 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, Gol, Bhopal and MP PCB.
10. 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.
11. The project proponent has to strictly follow directions/guideline issued by the MoEF, Gol, CPCB and other Govt. agencies from time to time.
12. 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 and a copy of the same shall be forwarded to the Regional Office, MoEF, Gol, Bhopal and MP PCB.

13. 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
14. 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 Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
15. 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.
16. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
17. 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.
18. 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.
19. 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.
20. 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, SO₂, NO_x (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.
21. The environmental statement for each financial year ending 31st 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.

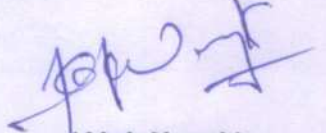


(Shriman Shukla)
Member Secretary

Copy to:-

- (1). Principal Secretary, Department of Environment., Government of MP, Mantralaya Vallabh Bhawan, Bhopal.

- (2). Member 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 Jhabua, 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.


(Alok Nayak)
Officer-in-Charge

