

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY HARYANA  
Bay No. 55-58, Prayatan Bhawan, Sector-2, PANCHKULA.

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Dated: 22/07/2021

No. SEIAA (128)/HR/2021/ 456

To

M/s Syschem India Ltd.  
SCO 825, First floor, NAC Manimajra,  
Shivalik Enclave, Chandigarh-160101  
E-mail Id: hr@syschem.in

Subject: EC for expansion and modification of existing chemical Unit for API and Bulk Drug Production located at village Bargodam, Tehsil Kalka, District Panchkula, Haryana.

22/7/21  
This letter is in reference to your application dated 04.09.2020 addressed to Member Secretary, SEIAA, Haryana received on 05.10.2020 and subsequent letter dated 25.03.2021, 27.05.2021, 01.07.2021 and 12.07.2021 seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Pre-feasibility Report, EMP and additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF & CC, GoI vide their Notification dated 30.01.2019, in its meetings held on 25/26.03.2021 to grant Environment Clearance to the project.

[2] It is inter-alia, noted that the project involves the expansion and modification of existing chemical Unit for API and Bulk Drug Production located at village Bargodam, Tehsil Kalka, District Panchkula, Haryana. The details of the project as given below.

Sr. No.	Particulars	
1.	Online Proposal Number	SIA/HR/IND2/172404/2020
2.	Latitude	30°51'44.59"N
3.	Longitude	76°54'7.13"E
4.	Plant Capacity	6372 MTPA
5.	Capacity of Boiler	6 TPH
6.	Plot Area	25.662 m <sup>2</sup> (2.56 ha.)
7.	Total Green Area with %	9715 (37.86 % of total plot area)
8.	Rain Water Harvesting Pits (with size)	100 KL Storage Tank
9.	ETP Capacity	200 KLD
10.	Power Requirement	1200 KVA
11.	Power Backup	750 KVA
12.	Total Water Requirement	271 KLD
13.	Domestic Water Requirement	16 KLD
14.	Fresh Water Requirement	76 KLD
15.	Treated Water	195 KLD
16.	Solid Waste Generated	53 kg/day
17.	Biodegradable Waste	32 kg/day
18.	Total Cost of the project:	Total Cost Rs. 10 Crores
19.	Socio Economic EMP	Rs. 20 Lacs
20.	EMP Budget	Capital Cost - Rs.270 Lacs Recurring Cost- Rs.44 Laes/yr

21.	Incremental load in respect of:	i. PM <sub>10</sub>	--
		ii. PM <sub>2.5</sub>	--
		iii. SO <sub>2</sub>	1.69 µg/m <sup>3</sup>
		iv. Cl <sub>2</sub>	0.380 µg/m <sup>3</sup>
		v. HCl	0.852 µg/m <sup>3</sup>
		vi. CO	---

**Details of Process Emissions and their management**

Sr. No.	Stack attached to	Stack Height (m)	Air Pollution Control Management	Expected Pollutants
<b>Existing Phase</b>				
1.	Boiler (6 TPH)	33	Cyclone Collector	Dust, PM <sub>2.5</sub> , PM <sub>10</sub> , NO <sub>x</sub> , SO <sub>x</sub>
2.	DG sets(750 KVA)	6	-	NO <sub>x</sub> , SO <sub>2</sub> , PM <sub>2.5</sub> , PM <sub>10</sub> , CO.
3.	Process Stack	15	Process emission are scrubbed in caustic/water/acid scrubber before venting through stack	CO <sub>2</sub> , HCl, NH <sub>3</sub> , SO <sub>x</sub>
<b>Additional/Proposed</b>				
1.	Process-Set -I	15	Process emission will be scrubbed in caustic/water/acid scrubber before venting through stack	CO <sub>2</sub> , HCl, NH <sub>3</sub> , SO <sub>x</sub>

**Details of Hazardous/Non-Hazardous Waste Generation**

S. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity			Mode of Treatment & Disposal Method
				Existing (TPA)	Proposed/ Additional (TPA)	After Expansion (TPA)	
1.	Residues and wastes	Process	Sch-I/ 28.1	10	2474	2484	TSDF
2.	Spent catalyst/ spent carbon	Process	Sch-I/ 28.2	0	573	573	TSDF
3.	Waste Solvent	Process	-	0	52841	52841	TSDF
4.	Distillation residues	Process	Sch-I/20.3	0	2642	2642	TSDF
5.	Spent Oil	Machinery	Sch-I/5.1	0	800 (LPA)	800 (LPA)	TSDF
6.	Discarded Containers/Bags /Liners	-	Sch-I/ 33.1	0	1000 (Nos. PA)	1000 (Nos. PA)	Authorized Recycler
7.	ETP Sludge	ETP	Sch-I/35.3	0	72	72	TSDF
8.	MEE Salt	MEE	Sch-I/35.3	1800	5400	7200	TSDF
9.	Fly Ash	Boiler	-	180	20	200	TSDF

**Capacity of Proposed Products**

Sr. No.	Products	Existing (MTPA)	After Expansion (MTPA)	Type of API as per Drug and Cosmetics Act, 1948
<b>Existing Products</b>				
1	Pivaloyl Chloride	204.4	0	-

2	Pyridine Hydrobromide	135.05	0	-
3	7-ADCA	189.8	0	-
4	HexamethylDisilazane	204.4	0	-
5	Azaacyclonol Base	25.55	0	-
<b>Proposed Products</b>				
<b>Phase I</b>				
1	Amoxicillin Trihydrate	0	2400	Antibiotics
2	Ampicillin Trihydrate	0	1200	Antibiotics
3	Cloxacillin Sodium	0	1200	Antibiotics
4	Dicloxacillin Sodium	0		
5	Oxacilline Sodium	0		
6	Flucloxacillan Sodium	0		
7	Distillation of Solvents	0	1200	Antibiotics
<b>Phase II</b>				
1	Fexofenadine Hydrochloride	0	120	Anti-allergic
2	Atorvastatin Calcium	0	120	Cholesterol-reductant
3	Pentazocine	0	12	Pain relief
4	Clopidogrel Hydrogen Sulphate	0	120	Blood Dilutor
	<b>Total</b>	<b>759.2</b>	<b>6372</b>	

**: RAW MATERIAL AND SOURCE**

22/7/21

Raw Materials Consumptions - Phase - I					
S. No.	Product	Proposed Capacity (MT) Per Annum	Raw Materials	MT/Annum	Source
1	Amoxicilline Trihydrate	2400	PHPG (p - Hydroxy Phenyl Glycine)	1348.31	China
			Thionyl Chloride	970.787	India
			Methanol	2426.97	India
			water	9707.87	
			6-Aminopenicillanic acid (6 APA)	1348.31	China
			Isopropyl alcohol (IPA)	404.494	India
			Enzyme	1348.31	India/China
			Ammonia Solutions (16%)	808.989	India
2	Ampicilline Trihydrate	1200	Phenyl Glycine	656.151	India/China
			Thionyl Chloride	524.921	India
			Methanol	237.527	India
			water	5203.79	
			6-Aminopenicillanic acid (6 APA)	736.067	China
			Isopropyl alcohol (IPA)	220.82	India
			Enzyme	633.018	India/China
			Ammonia Solutions (17%)	529.968	India
Raw Materials Consumptions - Phase - I					
S. No.	Product	Proposed Capacity (MT) Per Annum	Raw Materials	MT/Annum	Source

3	Cloxacillin Sodium	1200	2-Ethyl Hexanoic Acid	600	India/China				
			Methyl isobutyl ketone (MIBK)	240	India				
			Ethyl Acetate	6900	India				
			water	2479.2					
			Sodium Hydroxide	206.4	India				
			6-Aminopenicillanic acid (6 APA)	600	China				
			CHLOROMETHYL ISOPROPYL CARBONATE (CMIC)	756	India/China				
			Sodium Chloride	600	India				
			Ammonia	47.4	India				
			2-Ethyl Hexanoic Acid	585,366	India/China				
			Methyl isobutyl ketone (MIBK)	234,146	India				
			Dicloxacillin Sodium			Ethyl Acetate	6731.71	India	
	water	2418.73							
	Sodium Hydroxide	201,366				India			
	6-Aminopenicillanic acid (6 APA)	585,366				China			
	DCMIC	805,463				India/China			
	Sodium Chloride	585,366				India			
	Ammonia	46,2439				India			
	2-Ethyl Hexanoic Acid	674,157				India/China			
	Methyl isobutyl ketone (MIBK)	269,663				India			
	Ethyl Acetate	7752.81				India			
	water	231.91							
	Oxacilline Sodium						Sodium Hydroxide	231.91	India
			6-Aminopenicillanic acid (6 APA)	674,157	China				
			PMIC	768,539	India/China				
			Sodium Chloride	674,157	India				
			Ammonia	53,2584	India				
			2-Ethyl Hexanoic Acid	571,429	India/China				
			Methyl isobutyl ketone (MIBK)	228,571	India				
			Ethyl Acetate	6571,43	India				
			water	2361,14					
			Sodium Hydroxide	196,571	India				
			6-Aminopenicillanic acid (6 APA)	571,429	China				
			Flucloxacillin Sodium				FCMIC	768	India/China
	Sodium Chloride	571,429				India			
	Ammonia	45,1429				India			
	<b>Raw Materials Consumptions - Phase - 2</b>								
	S. No.	Product				Proposed Capacity (MT) Per Annum	Raw Materials	MT/Annum	Source
	1	Atorvastatin Calcium				120	ATC-A2 (C88H97Cl2N9O33)	122,069	India/China
							Isopropyl alcohol (IPA)	3480.65	India
							Thiozolum Bromide	9,765517	China
							Triethanolamine (TEA)	41,50345	India/China
4-FBD							57,03062	India	
Mol sieve							24,41379	India	
methylene dichloride (MDC)							1106,311	India	
Hyflo			10,1202	India					
Methanol			1914,38	India					

			Raney Nickel	26.15764	India
			Hydrogen	1.453202	India
			DM Water	9832.593	India
			Methanolic Ammonia	69.75369	India
			Cyclo Hexane	600.527	India
			Pivilic Acid	29.64532	India
			Sodium Bi carbonate	69.75369	India
			Activated Carbon	16.16158	India
			Hydrogen chloride (HCl)	32.33431	India
			Sodium Hydroxide	29.66371	India
			Methyl tert-butyl ether (MTBE)	1122.502	India
			Calcium Acetate	17.61554	India
			Cyclo Hexane	519.0714	India
			Ethyl Acetate	723.8423	India
			Fax 8	193.5484	India
2	Fexaphenadrne Hydrochloride	120	Methanol. Hydrogen chloride(HCl) (22%)	611.6129	India
			Azacyclonol	164.5161	India
			Sodium Carbonate	96.77419	India
			Isopropyl Alcohol	1047.956	India
			DM Water	1161.29	India
			Potassium Iodide	0.967742	India
			Sodium Borohydride	10.64516	China/Europe
			Methanol	504.5806	India
			Hydrochloric Acid	170.3226	India
			Sodium Hydroxide	65.34194	India
			Denatured Spirit	255.6542	India
			Hydrochloric Acid	81.90968	India
			Hyflo Supercell	3.630968	India
			Ethyl Acetate	793.4865	India
			Activated Carbon	3.483871	India
<b>Raw Materials Consumptions - Phase - 2</b>					
S. No.	Product	Proposed Capacity (MT) Per Annum	Raw Materials	MT/Annum	Source
3	Clopidongral Bi Sulphate	120	2-Chlorophenyl Glycine	108.3333	India/China
			Methanol	942.9624	India
			Thionyl Chloride	106.1667	India
			methylene dichloride (MDC)	741.6328	India
			Ammonia Solution (10%)	4195.99	India
			DM Water	4201.036	India
			Tartaric Acid	80.98371	India
			Acetone	706.5529	India
			Paraformaldehyde	42.77778	India
			Hexane	947.1194	India
			Thioephene-2-ethanol	66.66667	China
			p-TS Chloride	139.9333	India/China
			Sodium Hydroxide	66.66667	India
			Hyflo	3.866667	India
			Activated Carbon	3.283333	India


R2  
22/7/24

			Sulphuric Acid	24.81111	India
			TBAClchloride	3.333333	India
			Toluene	400	India
			Hydrochloric Acid	28.42222	India
			Di Potassium Hydrogen Phosphate	157.9778	India
			Ethyl Acetate	467.4411	India
			Isopropyl alcohol (IPA)	756.1555	India
<b>Raw Materials Consumptions - Phase - 2</b>					
S. No.	Product	Proposed Capacity (MT) Per Annum	Raw Materials	MT/Annum	Source
4	Pentazocin	12	PTZ - IV	23.52941	India
			Methanol	183.0941	India
			Ammonium Formate	18.82353	India
			Palladium carbon (10%)	3.058824	India
			Potable water	733.0565	India
			Aqueous ammonia (25%)	168.6816	India
			Methylene chloride	62.35294	India
			Isoprene	8.195294	China/Europe
			Hydrobromic acid (NLT 47%)	68.51266	India
			Calcium chloride anhydrous	2.048824	India
			Di methyl formamide	40.63529	India
			Sodium bicarbonate	7.505882	India
			Acetic acid	6.6	India
			Activated carbon	4.124706	India
			Hyflo supercel	3.882353	India
			Isopropyl alcohol	14.44235	India
			Hexane	224.9553	India
Isopropyl alcohol (IPA)-Hydrogen chloride (HCl) (26%)	14.90824	India			
Acetone	167.7294	India			

[3] The State Expert Appraisal Committee, Haryana after due consideration of the relevant documents submitted by the project proponent and additional clarification furnished in response to its observations, have recommended the grant of environmental clearance for the project mentioned above, subject to compliance with the stipulated conditions. Accordingly, the State Environment Impact Assessment Authority in its **128<sup>th</sup> meeting held on 26.05.2021** decided to agree with the recommendations of SEAC to accord necessary environmental clearance for the project under **Category 5(f)** of EIA Notification 2006 subject to the **strict compliance with the following specific and general stipulations:**

- (i) The SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 and forwarded by Central Pollution Control Board vide letter dated 25th October, 2019 to the SPCB's, while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.

- (ii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the SEIAA. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (iv) Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology.
- (v) Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi) 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.
- (vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii) Total fresh water requirement shall not exceed 96 KLD, proposed to be met from Groundwater after the approval of competent authority.
- (ix) Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (x) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xi) Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii) Process organic residue and spent carbon, if any, shall be sent to cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiii) 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)

  
 24/7/24

- Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv) As proposed green belt of at least 10-20 m width shall be developed mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. As committed by the project proponent, the greenbelt area shall be developed and maintained in an area of 40% out of the total project area.
- (xv) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**A. Specific Conditions:-**

1. Effluent shall be treated in the ETP and should adhere to the HSPCB/CPCB Guidelines.
2. The Project Proponent would devise a monitoring plan to the satisfaction of the State Pollution Control Board so as to continuously monitor the treated waste water being used for flushing in terms of faecal coli forms and other pathogenic bacteria.
3. Separate wet and dry bins must be provided at ground level for facilitating segregation of waste. Solid Waste shall be segregated into wet garbage and inert materials. Wet Garbage shall be composted. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The Inert waste from the project will be sent to dumping site.
4. The PP shall prepare an Action Plan for solvent recovery and their emission control and details of solvent to be used.
5. The PP shall make arrangement to control the process emission from the proposed unit.
6. The PP shall monitor the ambient air quality of emissions from the project shall include BOC, other process specific pollutants like  $\text{NH}_3$ , Cl, HBr,  $\text{H}_2\text{S}$ , HF etc. (as applicable).
7. The PP shall prepare the work zone monitoring arrangements for hazardous chemicals.
8. The PP shall prepare the detailed effluent treatment scheme including segregation of effluent streams for unit adopting ZLD.
9. The PP shall prepare the action plan for odour control and utilization of MEE/Dryers Cells.
10. The PP shall submit the details of incinerator, if to be installed.
11. The PP shall prepare the Risk Assessment Action Plan for safety, storage and handling of hazardous chemicals.
12. The PP shall use material safety data sheets for all the chemicals being used or will be used.
13. The PP shall ensure health and safety of the workers engaged in handling of toxic materials.
14. No tree cutting has been proposed in the instant project. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The Existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 9715  $\text{m}^2$  (37.86 % of total plot area) shall be provided for green area development.



15. The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
16. Consent to establish/operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of pollution) Act, 1981 and the Water (Prevention and control of pollution) Act, 1974.
17. The Approval of the Competent Authority shall be obtained for structural safety of building code due to earthquakes, adequacy of firefighting equipment's etc. as per National Building Code including protection measures from lightening etc.
18. The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA
19. The PP shall provide 1 Rain water storage tank of 100KL for storage of rain water runoff by taking all precautions that the water from hazardous waste runoff shall not be mixed up with the runoff.
20. The PP shall get permission of 6TPH boiler from Haryana Boiler Inspection Department
21. The PP shall submit the details of total organic solvent used for the process in the unit
22. The PP shall take all precautions to the use of chemicals and their vapors to manage the fire accident.
23. Any change in stipulations of EC will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance

#### B. Statutory Compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
  - ii. The project proponent shall obtain clearance from the National Board for wildlife, if applicable.
  - iii. The Project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendation of the approved Site Specific Conservation Plan/ Wildlife Management Plan shall be implemented in consultation with the state Forest Department. The implementation report shall be furnished along with the six monthly compliance report (in case of the presence of schedule-1 species in the study area).
  - iv. The project proponent shall obtain Consent to establish/operate under the provision of air (Prevention & Control pollution) Act, 1981 and the water (Prevention & control of pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.
  - v. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as attended from time of time.
  - vi. 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 (MJVA), 1989.
- I. Air quality monitoring and preservation:**
- i. The project proponent shall install 24\*7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (protection) Rules 1986 and connected to SPCB 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. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25 in reference to PM emission, and SO2 and NOX in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120 each), covering upwind and downwind directions.
  - iv. 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 (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
  - v. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
  - vi. National Emission Standard for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608 (E) dated 21st July, 2010 and amended form 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.

### **2. 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 (applicable in case of the projects achieving ZLD).
- 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 (applicable in case of the projects achieving the ZLD).
- iii. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- iv. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.
- v. 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.
- vi. 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.
- vii. The DG sets 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.

### **3. Noise monitoring and prevention:**

- i. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii. The overall noise levels in and around the plant areas 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. 75dB(A) during day time and 70 dB(A) during night time.

#### 4. Energy Conservation measures

- i. The energy sources for lighting purposes shall preferably be LED based  
ii. The PP will follow guidelines of ECBC required for industrial projects

#### 5. 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. 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.
- ii) The company shall undertake waste minimization measures as below:-
- Metering and control of quantities of active ingredients to minimize waste.
  - Reuse of by-products from the process as raw materials or as raw material substitutes in the other process.
  - Use of automated filling to minimize spillage.
  - Use of Close Feed system into batch reactors.
  - Venting equipment through vapors recovery system.
  - Use of high pressure houses for equipment clearing to reduce wastewater generation.

#### 6. Green Belt:

- i. The green belt of 5-10 m width shall be developed in more than 33% of the total 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 guidelines in consultation with the State Forest Department.

#### 7. Safety, Public hearing and Human health issues:

- 20/7/24 i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. 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, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.
- iv. Occupational health surveillance of the worker shall be done on a regular basis and records maintained as per the Factories Act.

#### 8. Corporate Environment Responsibility:

- i. The project proponent shall comply with the provisions regarding Corporate Environment Responsibility.
- ii. 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 and /or shareholders/stakeholders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of the 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 report to the head of the organization.
- iv. Action plan for implementing EMP and Environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by the competent authority. The Year wise funds earmarked for environmental

protection measures shall be kept in separate account and not to be diverted and 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.

- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.

#### 9. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely: PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State government.
- ix. The project proponent shall abide by the 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.
- x. 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).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (protection) Act, 1986.
- xii. The Ministry/SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry/SEIAA reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulate conditions. The project authorities should extend full cooperation to the officer (s)

- of the Regional Office by furnishing the requisite data/information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Presentation & Control of Pollution), Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, The Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management & Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other order passed by the Hon'ble Supreme Court of India/ High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC 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.
- xvii The Project Proponent should intimate to the Authority as well as to the quarter concerned in case of any change in the present communication address.

o/c  
22/7/21  
Member Secretary,  
State Level Environment Impact  
Assessment Authority, Haryana, Panchkula.

Endst. No. SEIAA (128)/HR/2021/757-763 Dated: 22/07/2021

A copy of the above is forwarded to the following:

1. Director (IA Division), MoEF & CC, Gol. Indra Paryavaran Bhavan, Zor bagh Road- New Delhi-110003.
2. Chairman, State Environment Impact Assessment Authority Haryana Bay's No. 55-58, Prayatan Bhawan, sector-2, Panchkula.
3. Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula.
4. Director General, Environment & Climate Change Department, Haryana, SCO 1-3, Sector-17 D, Chandigarh-160017
5. Director General, Town & Country Planning Haryana, Plot No. 3, Sector - 18A, Madhya Marg, Chandigarh- 160018.
6. Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's no. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160018.
7. Concerned File/ Office Copy.

o/c  
22/7/21  
Member Secretary,  
State Level Environment Impact  
Assessment Authority, Haryana, Panchkula.