सत्यमेव जयते

File No: IA-J-11011/329/2023-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **04/11/2024**

To,

Sanjay Sarkar
INDO ASIA COPPER LIMITED
7th Floor, Hasubhai Chamber, Opp. Town Hall, Ellisbridge, Ahmedabad-380006, Gujarat., Ahmedabad, AHMADABAD, GUJARAT, 380006
esg@indoasiacopper.com

Subject: **Setting up of Greenfield Integrated Copper Plant of 10 LTPA with Fertilizer Plant of 16.5 LTPA located at Village Lunsapur & Lothpur, Amreli district, Gujarat by Indo Asia Copper Limited - Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/GJ/IND3/482191/2024 dated 29/07/2024 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A1901GJ5674617N
(ii) File No.	IA-J-11011/329/2023-IA-II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	5(a) Chemical fertilizers
(vi) Sector	Industrial Projects - 3
(vii) Name of Project	Greenfield Integrated Copper plant 10 LTPA and Fertilizer plant 16.5 LTPA
(viii) Name of Company/Organization	INDO ASIA COPPER LIMITED
(ix) Location of Project (District, State)	AMRELI, GUJARAT
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. The Ministry of Environment, Forest and Climate Change has examined the proposal seeking environmental clearance

for Setting up of Greenfield Integrated Copper Plant of 10 LTPA with Fertilizer Plant of 16.5 LTPA located at Village Lunsapur & Lothpur, Amreli district, Gujarat by M/s Indo Asia Copper Limited.

4. The project/activity is covered under Category 'A' of item 3(a) - Metallurgical Industries (ferrous and non-ferrous), 5(a) Chemical Fertilizer industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). PP has submitted application to EAC (Industry – 1 Sector of IA Division) for appraisal w.r.t. item 3(a) - Metallurgical Industries (ferrous and non-ferrous). PP has submitted application to EAC (Industry – 3 Sector of IA Division) for appraisal w.r.t. item 5(a) Chemical Fertilizer industry.

5. The standard ToR for obtaining prior Environmental Clearance has been issued by Ministry *vide* File No.: IA-J-11011/329/2023-IA-II(I) dated 10.9.2023. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC case. The proposal was placed in this 84th EAC meeting on 22.8.2024, wherein EAC deferred the proposal for want of requisite information. Further the proposal was considered in the 86th EAC meeting held on 30.9.2024, wherein the PP along with accredited Consultant, M/s. Eco Chem Sales & Services (NABET Accreditation No.: NABET Registered NABET/EIA/2326/RA 0292 and it is valid upto 15th March 2026] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

6. The PP reported that proposed project will be developed on 16, 15,800 m^2 area and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Particulars	CAS No.	Type of product	Quantity
Copper Cathode/ CCR Wire Rod	7440-50-8	Product	10,00,000 TPA
Fertiliser (DAP and NPK) Plants	DAP: 7783-28-0 NPK: 66455-26-3	Co-product	16,50,000 TPA
Precious Metals	Gold: 7440-57-5 Silver: 7440-22-4 Selenium: 7782-49-2	Co-product	Gold-5.88 TPA, Silver-58.2 TPA & Selenium: 216 TPA
Sulphuric Acid	7664-93-9	Co-product	23,00,000 TPA (Saleable – 3,42,500 TPA)
Phosphoric Acid	7664-38-2	Co-product	6,75,000 TPA
Fluoro-silicic acid	16961-83-4	Co-product	26,000 TPA
Granulated Phospho-gypsum	10101-41-4	Co-product	2,00,000 TPA
GFRG Panels	-	Co-product	9 million Sq. m
Cu to Liberator cells & others	7440-50-8	Co-product	9667 TPA

7. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under the E(P) Act/Air Act/Water Act.

8. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors etc., within 10 km distance from the project site. River Dhatarvadi Nadi is flowing at a distance of 2.15 km in S direction and Raydi Nadi is flowing at a distance of 4.0 km in WSW direction. Five Number of Schedule-I species are found in 10 km of radius of the project site and Conservation Plan for the same has been approved by Chief Wildlife Warden of Gujarat vide letter dated 20.5.2024.

9. The PP reported that Ambient air quality monitoring was carried out at 09 locations during 1st October 2022 to 31st December 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (54.0 – 95.0 µg/m^3), $PM_{2.5}$ (33.0

–57.0 µg/m^3), SO_2 (6.2 – 22.8 µg/m^3) and NO_X (11.4 – 29.3µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs for the proposed project would be0.88µg/m^3, 2.17µg/m^3, and 0.97µg/$m^3$with respect to PM_{10}, SO_X, and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

10. The PP reported that the water requirement for the proposed project is estimated as 33,200 m^3/day (including copper plant) which will be obtained from Gujarat Water Infrastructure Limited (GWIL).Industrial Effluent of 5772 KLD quantity (including copper plant) will be treated in ETP & RO and treated water will be reused in process and cooling tower. Domestic sewage (800 KLD) will be treated in STP Plant and treated water will be utilized in gardening purpose. The plant will be based on Zero Liquid Discharge system.

11. The power requirement for the proposed project is estimated as 274 MW, out of which 250MW will be obtained from the nearby Switchyard at Rajula of GETCO and 24 MW will be in-plant generation from WHRB-BPTG.04 nos. of 4 MVA each DG sets will be used as standby during power failure. Stack of 30 m will be provided as per CPCB norms to the proposed DG sets.

12. Internal power generation will be 24 MW through 2x12 MW waste heat recovery boiler (WHRB). Smelting furnace off gases are cooled in the Waste heat boiler. The waste heat boiler produces saturated steam at about 60 bar (g) pressure. Natural Gas – 1,39,16,000 Nm3/yr, LPG – 34,500 TPA, Fuel oil (LSHS) -18,500 KL/yr, HSD – 1,650 KL/yr.

13. **Details of Process Emissions Generation and its Management:**

SN.	Unit	Pollution Source	Details of APC	Design Limit
1.	Convertor and Anode & scrap melting Furnace area	· Stack emissions · Centralized Plant de-dusting	· Bag Filter based DE system. · FGD System	PM <30mg/Nm^3 SO_2<150 ppm
2.	Sulphuric Acid Plant	· Stack Emissions · Acid Mist	· Electrostatic Precipitator (ESP) · FGD System	PM <30mg/Nm^3. SO_2< 1kg/t of 100% H_2SO_4
3.	Refinery Area	· Plant/Area de-dusting area · Waste Flue Gas	· Electrostatic Precipitator (ESP) for dusts · FGD System · Low NOx burner	PM <30mg/Nm^3. SO_2< 150 ppm NOx< 50 ppm
4.	Precious Metal Recovery Plant	· Plant/Area de-dusting area · Waste Flue Gas	· Electrostatic Precipitator (ESP) for dusts · FGD System · Low NOx burner	PM <30mg/Nm^3. SO_2< 100 ppm NOx< 15 ppm
5.	Rock Grinding Plant	· Plant/Area de-dusting area	· Cyclone separator · Bag filter based dedusting system	PM <30mg/Nm^3.
6.	Phosphoric Acid Plant	· Stack Emissions · Acid Mist	· 3 stage Fluoride scrubber with additional fluoride recovery	PM <30mg/Nm^3. HF<15 mg/Nm^3
7.	DAP Plant	· Stack Emissions	· Cyclone separator with Multistage venturi scrubber	PM <30mg/Nm^3. NH_3< 70mg/Nm^3
8.	NPK Plant	· Stack Emissions	· Cyclone separator with Multistage venturi scrubber	PM <30mg/Nm^3. HF<7.5 mg/Nm^3 NH_3< 70mg/Nm^3
9.	Granulated PG Plant	· Stack Emissions	· Cyclone separator with single stage scrubber	PM <30mg/Nm^3. HF<15 mg/Nm^3

10.	GFRG Plant	· Stack Emissions	· Cyclone separator with single stage scrubber	PM <30mg/Nm^3. HF<15 mg/Nm^3

14. **Details of Solid waste/ Hazardous waste generation and its management:**

Sn.	Name of waste	Source	Type of waste	Generation (in TPA)	Disposal (in TPA)		Measure for disposal
					Recycled/ reused	Sold	
1.	Granulated Slag	Smelter & Converter	ISW	1635600	-	1635600	Stored in slag dump & sold to secondary users
2.	Phospho-Gypsum	Phosphoric Acid plant	ISW	3037500	-	3037500	Stored in Gypsum Pond & Sold to Cement plants
3.	ETP waste sludge	Effluent Treatment plant	HW	266986	-	266986	sent to SLF.
4.	Arsenic bearing sludge	ETP for treatment of Effluents of GCP of SAP, Refinery, scrubber of smelter secondary GCP & bleed from slag granulation pond.	HW	4934	-	4934	sentto SLF.
5.	Used oil	Plant machinery	HW	154 [160 KL/y]	-	154 [160 KL/y]	Recycled within plant/sold to authorised recyclers Disposed to SPCB authorized recyclers.
6.	Oily sludge	Plant machinery	HW	40	-	40	Sold to authorised recyclers or disposed to authorized solid and liquid disposal companies.
7.	Spent catalyst	Sulphuric acid plant	HW	804 [240 KL/y]	-	804 [240 KL/y]	Stored in SLF or will be disposed/ sold to catalyst manufacturer.
8.	Spent resin from DM, RO & refinery plant	DM plant, RO plant & Copper refinery	HW	19 [24 KL/y]	-	19 [24 KL/y]	Stored in SLF or will be disposed/ sold to authorized manufacturer.
9.	Municipal waste	Canteen, offices, etc.	MSW	48	48	-	Composting for canteen wastes
10.	Plastic bags (HDPE)	Canteen, offices	PW	3	-	3	As per PWM2016: Sold for Co-processing,

							recycling & reuse
11.	E-waste (Cables, LED bulbs, etc.)	Plant premises	EW	3	-	3	Sent to registered recyclers/ vendors
12.	Waste batteries	Trucks/ vehicles	BW	0.5	-	0.5	Sent to registered recyclers/ vendors
			Total	**4946091**	**48**	**4946043**	**100% waste disposal**
Note: ISW – Industrial Solid waste (non-hazardous) , HW – Hazardous waste , MSW – Municipal Solid waste, PW- - Plastic waste, EW – e-waste, BW – Batteries waste							

15. The Budget earmarked towards the Environmental Management Plan (EMP) is . 1302.05 Crores (capital) and the Recurring Cost (operation and maintenance) will be about . 21.8 Crores per Annum. Industry proposes to allocate Rs. 15.00 Crores towards Corporate Environment Responsibility.

Sl. no	Description of Item		CAPITAL COST (in Rs. Lakhs)	RECURRING COST (in Rs. Lakhs)
1.	**Air & Noise pollution management**			
	a)	Air Pollution Control Measures (FGD, ESP, GCP)	30800	320
	b)	Noise Management (Earmuffs, PPEs, etc.)	11.3	1.1
2.	**Water pollution management**			
	a)	Wastewater Pollution Control Measures (ETP, WTP, STP etc.)	14200	545
3.	**Solid waste management**			
	a)	Measures for management of solid wastes (SLF)	1425	1020
	Waste-to-wealth facilities (PMRP, GFRG plant, GPG plant)			
	b)	PMRP	16200	13.2
	c)	GFRG plant	58500	0.31
	d)	GPG plant	1200	12.1
4.	**Safety & OHC**			
	a)	Setting up and operating of OHC	95	34
	b)	Safety shoes, heat resistant PPEs, safety helmets etc.	41.2	4.10
5.	**Greenbelt**			
	a)	Development of greenbelt within the plant	40.2	2.01
6.	**Other Environment management measures**			
	a)	Rainwater harvesting	214	12
	b)	Gas collection hood and energy conservation (WHB)	7250	0
7.	**Environmental Monitoring and Management**			
	a)	CAAQMS installation & operation	96	9.6
	b)	OCEMS installation in Stacks	132	13.2
	c)	Regular environmental monitoring in and around the project site	0	193
		Total (in Lakhs)	**130204.5**	**2179.6**
		In Crores	**~1302.05 Cr**	**~21.8 Cr**

16. Industry will develop greenbelt in an area of 33.27 % i.e., 5,37,400 m^2 out of total area of the project.

17. The PP reported that the Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 13/03/2024 at 11:00 AM. at Open Plot at Survey No. 41 Near Vanko Baval Chokdi, Village Lothpur, Taluka

Jafrabad, District: Amreli, Gujarat. The main issues raised during the public hearing are related to Employment of locals, Skill development for local youth, air and water pollution, Solid waste disposal, Greenbelt development etc.

Sl. No.	Issue Raised	Commitment made by Project Proponent	Action Plane with Time-frame & Budget
1	Employment of locals	v ~2500 people (mostly local people) will be employed during the plant's construction v ~2700 people will be employed during the plant's operation v Preference will be given to locals, including women in employment depending on their qualifications. IACL would try that ~80% of those employed at the plant are locals	-
2	Loss of Livelihood	v Preference in employment will be given to land losers. v Since the proposed plant will not cause any marine pollution, livelihood of those dependent on fishing & allied activities will not be affected	-
3	CSR Activities	v For the social upliftment of nearby villages, development as per the requirement of villages will be done through the setting up of a committee of village Sarpanchsand accordingly funds will be allotted through CER & CSR.	IACL will spend Rs. 15 Crores over 7 years after commissioning of the plant
4	Skill development for local youth	v Once the project starts IACL will set up two Skill Development Centres for training local youth	As part of IACL's 7-year CSR programme 2 such centres would be set up in the 3rd& 6th year at cost of Rs. 1 crore each
5	Air Pollution	The plant will have the latest technology to control pollution especially sulphur-di-oxide pollution. v Double contact technology will be used to ensure maximum capture of SO_2 and conversion to sulphuric acid. The sulphuric acid will be utilized entirely within the plant for manufacture of fertilizers v After SO_2 absorption, smelter gases will be further routed through wet scrubber using caustic to remove residual SO_2. v There shall be equipment for control of particulate matter also.	Ø IACL will invest Rs. 308 Crores towards air pollution control eqpt. / systems' installation. Ø IACL will spend Rs. 3.2 crores annually towards operation of air pollution control eqpt. / systems
6	Water Pollution incl. sea water pollution	v The plant will operate on Zero Liquid Discharge (ZLD) basis. All effluents generated at the plant will be treated and utilized in the plant. v The plant is well away from the sea coast or any tidal creek. No effluents will be discharged to the sea or any creek. Therefore, no Coastal Regulation Zone will be affected.	Ø IACL will spend Rs.142 Crores towards installation of water pollution control systems Ø IACL will spend Rs. 5.45 crores annually towards operation of water pollution control systems
7	Damage to horticulture crops	Since the plant will not cause any air pollution or any effluents will be discharged outside the plant, damage to horticulture crops shall not occur	-
8	Solid waste disposal	v Almost the entire quantity of solid wastes generated at the plant will be utilized for manufacturing other products in the plant itself or sold off to downstream users or handed over to authorized recyclers. v Any unsold waste will be dumped in a Secured Land Fill (SLF) located inside the plant. v The SLF will be constructed and operated as per CPCB's specifications / guidelines so that there is no contamination of ground water or soil or any odour pollution	v Rs.759.0 Crores will be spent for setting up units for manufacturing other products from wastes v Rs.14.25 Crores will be invested for setting up SLF. v Rs.10.2 Crores /yr. will be spent towards operation of SLF

9	Depletion of scarce fresh water	v GWIL shall supply water for the plant from Narmada River through pipeline. Necessary paperwork for water supply by GWIL is under progress. v The plant shall not draw any ground water or water from any nearby river v IACL is also exploring other sources of water required after plant commissioning during operational stage from other companies, for which MoU (s) / Agreement(s) shall be made	-
10	Protection for Schedule I Fauna incl. Asiatic Lions	Site Specific Wildlife Conservation Plan has been prepared and submitted to Forest Department for approval. Measures suggested in Approved Site-Specific Wildlife Conservation Plan shall be implemented as per responsibility matrix.	Proposed outlay: Rs. 11.20 crores.
11	Green Belt	53.74 Ha (i.e. 33% of the plant area) shall be earmarked for green belt & plantations.	~134000 trees will be planted over the 1st 3 years at cost of Rs.40.2 lakhs. ~Rs. 2 Lakhs shall be spent every year for green belt maintenance
12	Noise pollution	v The plant shall be designed to minimise noise propagation beyond plant boundaries. v Workers shall be provided with appropriate Personal Protective Eqpt. to reduce noise exposure	Initial expenditure: Rs.11.3 lakhs. Recurring expense: Rs.1.1 lakhs/ yr.
13	Possible rise in ambient temperatures due to the plant	The plant's operations shall not lead to increase in ambient temperatures in the area	-
14	Possibility of exposure to radioactivity due to use of radioactive raw materials.	No radio-active raw materials will be used at the proposed plant	-
15	Health impacts of proposed plant	v The plant will not use any carcinogenic elements. v CER fund will be allocated for the health care facilities and IACL will form a committee for the same. The CER fund will be spent as per requirement of your village according CC to Notification of MoEFCC.	v As part of its 7 ear CSR programme, IACL will spend Rs. 3 Crores towards upgradation of infrastructure at local Health Centres

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Officer for the functioning of EMC.

19. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

20. The estimated project cost is Rs. 15,689Crores (including copper plant). Total Employment will be 1200 Nos. of persons as direct and 1500 Nos. of persons as indirect.

21. The proposal was earlier considered in the 84th EAC meeting held on 22.8.2024 in which EAC deferred the proposal for want of information. Reply for the same has been submitted on 13.9.2024.

<table>
<tr><th>S.No</th><th>ADS sought by the Ministry</th><th>Reply by the PP</th></tr>
<tr><td>1.</td><td>PP informed that Land use as per record
<table>
<tr><td>Agricultural Land</td><td>156.35 Ha</td><td>Private (96.76%)</td></tr>
<tr><td>Waste Land</td><td>5.19 Ha</td><td>Govt. (3.21%)</td></tr>
</table>
<table>
<tr><td colspan="2">Ownership Details</td></tr>
<tr><td>Private Land</td><td>161.58 Ha</td></tr>
<tr><td>Ownership</td><td>• Registered – 37.5%
• Agreement for Sale – 3.2%
• Consent Letters – 52.6%
• Govt. Land – 3.21%</td></tr>
</table>
The Committee suggested that PP shall share the supporting documents.</td><td>The total land area required for the project is 161.58 Ha.
<table>
<tr><td>Type of Doc</td><td>Bigha</td><td>Ha</td></tr>
<tr><td>Registered Land</td><td>409.219675</td><td>66.19</td></tr>
<tr><td>Agreement for Sale</td><td>32.087175</td><td>5.19</td></tr>
<tr><td>Consent Letter</td><td>495.3419</td><td>80.12</td></tr>
<tr><td>Govt. application letter</td><td>32.149</td><td>5.2</td></tr>
<tr><td>Other Supporting doc</td><td>29.985125</td><td>4.85</td></tr>
<tr><td>Total</td><td>998.782875</td><td>161.58</td></tr>
</table>
Out of 161.58 hactare of land 55.08 hactare land is already converted to non-agriculture for industrial purpose to use for Copper and Fertilizer project of Project Proponent M/s Indo Asia Copper Ltd.
The Notarized Memorandum of Understanding SL NO: 8827/2024 dated 3rd July 2024 is duly executed amongst the Project Proponent M/s Indo Asia Copper Ltd , the Parent company (Kiri industry Limited), and the Promoters on dated 3rd July 2024 , and confirms the possession/ acquisition of 161.58 hactare of land, where some lands are in final registration process and conversion for industrial use purpose.
The English translations dated 9th July, 2024 have been attached evidencing readiness of the proposed land to commence the project work as soon as the environment clearance is obtained.</td></tr>
<tr><td>2.</td><td>Since 96 % of land is private in nature, PP to submit affidavit stating no R& R is involved in the project proposal.</td><td>PP has given undertaking stating that the proposed Greenfield Integrated Project at village Lunsapur, Amreli Gujarat with capacity of 10 LTPA copper and 16.5 LTPA fertiliser does not involve any rehabilitation and Resettlement issues.</td></tr>
<tr><td>3.</td><td>Sulphuric acid plant shall be designed as per CPCB guidelines.</td><td>The best ever process technology of DCDA process is followed in Sulphuric acid plant design to maintain the well within the latest CPCB emission norms</td></tr>
<tr><td>4.</td><td>Revised water balance details (considering Monsoon- Non monsoon season). Rainwater collection and utilisation details.</td><td>Non-monsoon Process Water Requirement = 32,800 KLD
Monsoon Requirement = (32800 –7900) = 24,900 KLD (for 32.5 days in Monsoon)
Rain water harvesting details are submitted by PP and same is submitted.
Water details considering monsoon Non-monsoon are submitted by PP and same aresubmitted.</td></tr>
<tr><td>5.</td><td>Revised the domestic water consumption based on commercial/industrial space requirement. Accordingly, quantify the sewage generation and STP treatment capacity as well as water requirement from treated sewage for horticulture purpose/ greenbelt.</td><td>Revised water balance is attached as Annexure-5.1.
Domestic water usage is revised in water balance as attached.
Treated water from STP(320 KLD) will be used for gardening.</td></tr>
<tr><td>6.</td><td>Details of generation of unitwise wastewater need to be submit for fertiliser unit. Generation of wastewater from fertilizer units needs to be verified as in general, wastewater from the DAP fertiliser is recycled within the process.</td><td>Water balance of the fertilizer unit is submitted.
There will be no waste water generation from fertilizer unit, even for treatment at ETP plant as the proposed fertilizer unit does not include SAP with its gas cleaning facility. SAP is in the scope of copper plant.</td></tr>
<tr><td>7.</td><td>Details of environmental safe guards for gypsum pond and gypsum yard.</td><td>Details of the same are submitted.</td></tr>
</table>

8.	Basis of calculation for size of secured landfill site and provide site suitability as per CPCB criteria for SLFs.	A Secured Land Fill (SLF) is proposed over 11.13 ha within the project premises for storing/disposal of ETP waste sludge and spent catalyst. Other Hazardous wastes will be disposed through the approved recyclers. IACL has already signed the MOU with M/s. Saurashtra cement limited for the disposal of 50,000 T ETP Sludge. The same is submitted**.** IACL is also in process to sign the MOU with M/s. Wonder Cement Limited for disposal of ETP sludge. Details of SLF design and material balance area is attached.
9.	Information related to baseline study for landfill site has not been furnished such which includes subsurface aquifer flow; Ground water characteristics at different water table depth; permeability coefficient of sub soil; bearing capacity of sub soil etc.	IACL has already hire the M/s. Gayatri Geotechnic Research for the baseline study. Report of the same is submitted.
10.	Details of Piezometers to be installed at upstream side and downstream side of the secured landfill site. Details of Monitoring plan and post closure plan.	SLF design details is submitted**.**
11.	Life of secured landfill site to be estimated based on available land area and waste generation. Details of secured landfill design to be furnished include closure plan as well as draining plan, leachate treatment plan.	SLF design details is submitted**.**
12.	During EAC meeting, PP informed that more 253 public had joined the hearing. However, 38 persons raised the issues and 90 have submitted written representations. Therefore, point wise reply to the issues raised in the written representation of public to be submitted by PP.	IACL has already submitted the point wise reply of the issue raised in written representation in the EIA report **Annexure 7.3.** The same is also submitted.
13.	Affidavit stating EIA study conducted as per ToR.	EIA study is conducted as per to TOR and IACL undertaking stating that EIA study conducted as per TOR is submitted.
14.	1% of project cost to be earmarked for CER	IACL is revised the CER budget from 15 Cr to 95 Cr. Breakup of the same is submitted.
15.	Carbon sequestration action plan to be submitted.	Action Plan for the Carbon sequestration submitted.
16.	Agreement with Cement Industry for sending gypsum.	IACL has already signed the MOU for disposal of phospho-gypsum with M/s. PMC Cement pvt. Ltd. The same is submitted.
17.	PP has to furnish copy of the application for obtaining water permission for 10,733 KLD for fertilizer plant	The total makeup water requirement for the plant is estimated to be **33,200 m3/day**. Makeup water requirement as soft in nature primarily will be made available by Gujarat Water Supply & Sewerage Board (GWSSB) / Gujarat Water Infrastructure Ltd. (GWIL), for which permission to draw water is under process. In this regard, IACL has submitted request letter vide dated 09/05/2023 to GWIL. The letter was recived by GWIL on 11/05/2023. Subsequently, GWIL has communicated IACL vide their letter no. GWIL/CS/1985/23-24/243 dated 19/05/2023 that GWIL can give25 MLD comfortably as and when required by IACL for which time to time IACL has to apply based on their stages of requirement. IACL further has applied immediate requirement of 2 MLD as stage one dated 12th July, 2024 and required fees also has been paid to

		GWIL. The documents for communication with GWIL regarding communication of water is attached. IACL is also exploring other sources of water required after plant commissioning during operational stage from other companies, for which MoU (s) / Agreement(s) shall be made.

22. **Deliberations by the EAC:**

During deliberations, EAC discussed the following issues:

(i) Regarding, Water Management during the construction phase. PP informed that total 2520 Nos. of people will be required. Out of which, 20 nos. of permanent employee and 2500 nos. on temporary basis. Total water requirement during the construction will be 200 KLD out of which 75 KLD will be required for domestic use considering 30 lit/person/day and remaining will be utilized for construction activity. For treatment of sewage generated from domestic activity will be treated in three nos of package type Sewage Treatment facility of 25 KLD capacity of each. This treated water will be reuse for gardening, dust suppression and construction purpose. To meet the water requirement water will be sourced from Gujarat Water Infrastructure Ltd. (GWIL) and unit has also obtained permission from the same vide letter No: GWIL/CS/1985/23-24/243 dated 19/05/2023 and also paid required fees.

(ii) Regarding Siting criteria to setup of Secured Land Fill (SLF) within the premises, PP informed that Secured Land Fill (SLF) is proposed over 11.13 ha within the project premises for disposal of ETP waste sludge and spent catalyst. All the operations involving in SLF like treatment, storage and disposal shall comply with the guidelines/ regulations issued by CPCB/MoEFCC. The site for the proposed SLF has been selected in line with CPCB guidelines for storage of hazardous wastes. The criteria for site selection and its compliance for the proposed SLF of IACL is submitted.

(iii) Regarding Inventory management for Phospho-gypsum Storage and disposal, PP informed that Phospho-gypsum (PG) is a moist di-hydrate rhombohedral crystalline solid and is produced as a by-product during production of Phosphoric Acid (PA) from Rock Phosphate& Sulphuric Acid in a Phosphoric Acid Plant (PAP). It is having an average particle size of 0.5-1.0 mm, and an average sp.gr of 2.3-2.6. Total average moisture content of PG is (35-40)%, out of which (19.5-20.5)% is water of constitution and rest is free moisture. A Typical Chemical Composition of PG:

Sl. No.	Composition	UOM	Value
1.	Cryst. H2O	%	19.5-20.5
2.	T.P2O5	%	0.8-1.0
3.	W.S.P2O5	%	0.2-0.25
4.	Co-Cryst. P2O5	%	0.52-0.6
5.	Un-Reacted P2O5	%	0.08-0.15
6.	CaO	%	39.4
7.	SO3	%	56.3
8.	SiO2	%	2.0
9.	T.F	%	0.3-0.5
10.	Sol.F	%	0.1-0.2
11.	Al2O3, Fe2O3, MgO	%	0.35-0.65
12.	Na2O, K2O	%	0.15-0.30

(iv) The purity of PG mostly depends on the quality of Rock Phosphate used and the technology employed. At IACL, Rock Phosphate used will be of high grade (68-76 BPL) and is employing the world wide largely accepted Di-hydrate Technology and also from a globally renowned DH-process Technology supplier, like Prayon, Belgium. This will structurally reduce the specific generation of PG and its impurity level. In IACL, mode of handling of PG from Plant (PAP) to Yard is by Dry route, not the customary wet route, as the latter is more susceptible to leachate generation and ground water contamination.

(v) Regarding location of Phospho-Gypsum **Yard at Site, PP informed that t**he location of the Yard is suited at the N/W of Project Site, where elevation of ground level is Maximum. The leachate collecting Ponds also suitably positioned in the S/E end of the Yard, as a 3.0-4.0 m slope of the land is towards S/E leachate collecting sumps and pumps are also suitably located as per slope of the land of the yard.

Zone	Latitude	Longitude	Ground Level (m) (amsl)
North-East	71°24'39" E	20°57'15" N	14.05
North-West	71°24'24" E	20°57'10" N	14.80-14.9
South-West	71°24'29" E	20°57'01" N	11.35-12.15
South-East	71°24'44" E	20°57'07" N	17.55-17.79

Especially during monsoon any extra run-off water from Yard will be automatically collected in the collection ponds by gravity. The later will be structurally recovered to the Plant (PAP).
Natural water bodies are located very far from the Yard. Dhatarvadi Dam is located at 7.6 KM North and Dhatarvadi River is flowing across W to S of the premises and its nearest distance is 2.15 km from site. Nearest habitants of Lunsapur and Lothpur are at 1.5 &1.6 km away from site and located in South& East directions.

A holistic approach will be followed for assessing environment impact of a Phospho-Gypsum Stock: -

1. All the floors of the PG Yard, dykes, and the surrounding garland drains will be made compact &impervious, as per stipulated guidelines of GPCB/CPCB.

2. Environmental effects of any leachable contaminants will be monitored periodically on soil, water, vegetation, micro flora, etc., especially across the downstream areas of the Yard.

3. Both the stock of PG at the yard and content of its impurities will be kept as low as possible, by disposing the produced volume periodically and maintaining its quality, and thus to reduce its possible impact on environment,

Inventory management of Phospho-gypsum:

Sr. No.	Name of waste	Source	Type of waste	Month	Generation per month	Disposal (in TPA)			Measure for disposal
						Internal use Recycled/ reused		Sold	
						GPG	GFRG		
1.	Phospho-gypsum	Phosphoric Acid Plant	ISW	January	2,53,125	15,000	29,792	2,08,333	IACL made an MOU for sale of 25,00,000 TPA of
				February	2,53,125	15,000	29,792	2,08,333	
				March	2,53,125	15,000	29,792	2,08,333	

				April	2,53,125	15,000	29,792	2,08,333	phospho-gypsum with M/s. PMC cement pvt. Ltd. to dispose/sale.
				May	2,53,125	15,000	29,792	2,08,333	
				June	2,53,125	15,000	29,792	2,08,333	
				July	2,53,125	15,000	29,792	2,08,333	
				August	2,53,125	15,000	29,792	2,08,333	
				September	2,53,125	15,000	29,792	2,08,333	
				October	2,53,125	15,000	29,792	2,08,333	
				November	2,53,125	15,000	29,792	2,08,333	
				December	2,53,125	15,000	29,792	2,08,333	
	Total				**30,37,500**	**1,80,000**	**3,57,504**	**25,00,000**	

Action plan for mitigation of contaminants from possible run-off of Yard:-

· Floors & dykes of the bounded area will be made impervious by impregnation of HDPE liner between two layers of compacted soil/gypsum bed, and as per stipulated guidelines of MoEF and prior approval of GPCB.

· Bounded area will be surrounded by suitable garland stench, with two inbuilt pits, to catch & recover any possible run-off from the stock of the Yard.

· To minimise contamination, generation of PG will be minimised by employing

· Rock Phosphates of only imported origins and having av. P2O5 of not less than 31.5% for production of Phosphoric Acid.

· Both acidity and load of leachable contaminants will be minimised, by online mixing of generated green PG with powder slaked lime, before transported to Yard.

· Volume of generated PG in the yard will further be minimised by internally consuming it in bulk in the proposed captive production of Granulated Phospho-gypsum (2 LTPA) and GFRG Panel (90 lakh Sq. meter per Annum).

It will be further externally disposed for use in Cement. POP, low-cost Fertiliser for saline or alkaline soils (especially of large Gujarat Coastal Belt), Building Material, Gypsum blocks, Sub-Soil built up in road construction, etc. An MOU of 25 LTPA is made for sale of produced PG at IACL.

· Technology supporting Operation and Management for dry handling and dry storing of PG is chosen, in place of Wet Handling &Wet Storage, for easy and better control of leachate generation from the stock pile across the Yard.

· Samples of both surface and ground water, surrounding the Yard, both at the upstream and downstream, will be periodically collected, monitored and recorded for any possible contaminants. Will contact GPCB, if any deviation is established.

· Yard and its Leachate water ponds will be guarded round the clock.Condition of the Dykes and its leachate collecting drain will be inspected and maintained every shift of a day

· Protective and need based short and long term action plans will be taken for safety and protection of human health and environment.

· Protective and need based short and long term action plans will be taken for safety and protection of human health and environment.

· Individual Centre/ Department for Safety & Environment and OHE are provisioned for the proposed Project.

· Proper records of of PG stock the Yard will be maintained and monitored.

Ground water analysis with respect to proposed Secured Landfill site.

<u>Ground water Quality near SLF:</u>

Ground water flow in the plant area is from NW to S. In order to study the baseline ground water quality nearest point of SLF i.e. 150m from the boundary of the SLF in the up gradient and 1.1 km in the down gradient of SLF. The ground water quality results are given below.

Code	Location	
GW1	Nearest to SLF **North Eastern** Boundary 150m (Dug well)	Upgradient of SLF
GW2	Nearest to SLF 1.1 km in S(Bore well)	Down gradient of SLF

Ground water quality

Sr. No,	Parameters	Acceptable limits	Permissible limits	GW1	GW2
A.	**ORGANOLEPTIC AND PHYSICAL PARAMETERS**				
1.	Colour, Hazen Units (max)	5	15	<1	<1
2.	Odour	Agreeable	Agreeable	Agreeable	Agreeable
3.	pH value	6.5 to 8.5	NR	8.89	8.90
4.	Taste	Agreeable	Agreeable	Agreeable	Agreeable
5.	Turbidity, NTU, Max.	1	5	0.62	0.5
6.	Total Dissolved Solids, mg/l, max.	500	2000	1006	1000
7.	Total Hardness (as CaCO3), mg/l, max	200	600	180	170
8.	Salinity, (PSU)	-	-	0.739	0.600
B.	**GENERAL PARAMETERS CONCERNING SUBSTANCES UNDESIRABLE IN EXCESSIIVE AMOUNTS**				
9.	Aluminum (as Al), mg/l, Max	0.03	0.2	0.318	0.196
10.	Boron (as B), mg/l, max.	0.5	1	0.656	0.597
11.	Calcium (as Ca), mg/l, max.	75	200	27	59
12.	Chloride (as Cl),mg/l, max.	250	1000	164	492
13.	Copper (as Cu), mg/l, max.	0.05	1.5	0.015	0.017
14.	Fluoride (as F), mg/l, max.	1	1.5	1.43	1.78
15.	Iron (as Fe), mg/l, max.	1	NR	0.848	0.693
16.	Magnesium (as Mg), mg/l, max.	30	100	27	48
17.	Manganese (as Mn), mg/l, max.	0.1	0.3	0.018	0.022
18.	Nitrate (as NO3), mg/l, max.	45	NR	11.4	7.2
19.	Phenolic compounds, mg/l, max.	0.001	0.002	<0.001	<0.001
20.	Sulphate (as SO4), mg/l, max.	200	400	63	144
21.	Total Alkalinity (as CaCO3), mg/l	200	600	296	272
22.	Zinc (as Zn), mg/l, max.	5	15	<0.05	<0.05
23.	Total phosphorous, mg/l, max.	-	-	<0.03	<0.03
24.	Sodium (as Na), mg/l, max.	-	-	220	280
25.	Potassium (as K), mg/l, max.	-	-	2	120
C.	**PARAMETERS CONCERNING TOXIC SUBSTANCES**				
26.	Cyanide (as CN), mg/l, max.	0.05	NR		<0.01
27.	Lead (as Pb), mg/l, max.	0.01	NR		<0.01
28.	Mercury, (as Hg), mg/l, max.	0.001	NR		<0.0005
29.	Nickel (as Ni), mg/l, max.	0.02	NR		<0.01
30.	Total Arsenic (as As), mg/l, max.	0.01	NR		<0.01
31.	Total Chromium (as Cr), mg/l, Max.	0.05	NR	0.030	0.033
32.	Hexavalent chromium (as Cr6+), mg/l, Max.	-	-	<0.01	<0.01
33.	Vanadium (as V), mg/l, Max.	-	-	<0.05	<0.05

The committee was satisfied with the response provided by PP on above information.

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The EAC noted that the EIA reports are in compliance with the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The expert members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

24. Based on the proposal submitted by the PP and recommendations of the EAC (Industry-3 Sector), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance for **"Proposed Synthetic Organic Chemical manufacturing plant (Dyes Intermediates – 130 MT/Month, Dyes – 125 MT/Month and Inorganic Products – 200 MT/Month) located at Survey No.: 416, Village: Neja, Taluka: Khambhat, District: Anand, State: Gujarat"** under the provisions of the EIA Notification 2006 and its subsequent amendments therein, subject to compliance of the Specific and General terms and conditions as mentioned at **Annexure-1**. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

25. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

26. 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.

27. The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing 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.

28. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

29. 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.

30. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

31. 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.

32. The above conditions will 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, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

This issues with the approval of the Competent Authority.

Copy To

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010 (Gujarat)
2. Deputy Director General of Forests (C) Ministry of Env., Forest and Climate Change, Integrated Regional Office, Gandhi Nagar, A-Wing – 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar - 382010
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043 (Gujarat)
5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, District Amreli, Gujarat.
7. Guard File/Monitoring File/Website/Record File/Parivesh portal.

Annexure 1

Specific EC Conditions for (Chemical Fertilizers)

1. Specific Conditions

S. No	EC Conditions
1.1	Double Contact Double Absorption (DCDA) technology shall be used for manufacturing of Sulfuric acid plants as per CPCB guidelines. SO2 enriched gas stream shall be passed through a gas cleaning system comprising scrubbers and ESP to remove the impurities i.e. dust, arsenic, mercury etc. As proposed, FGD and Tail Gas Scrubber (TGS) shall be provided additionally for cleaning of process gases and mists before they are released into the atmosphere through the stack.
1.2	Cyclone separators, Low NOx burner, Scrubbers, Acid mist eliminator, Dust extraction system shall be provided to Fertilizer plant (with Phosphoric acid plant) to control emissions viz Dusts, SO2, NOx, NH3, F, Acid mist etc. ESP and low NOx burner shall be provided to waste heat recovery boilers to control emission viz. Dusts, SO2 & NOx etc.
1.3	Adequate stack height alongwith Cyclone separator with Multi Stage venturi scrubber shall be provided to DAP plant, NPK Plant and Granulated Phospho Gypsum plant and Glass Fibre Reinforced PG Panel (GFRG Plant) to control particulate emissions and process emissions viz. HF and NH3.
1.4	Total fresh water requirement for fertilizer plant from Gujarat Water Supply & Sewerage Board (GWSSB) / Gujarat Water Infrastructure Ltd. (GWIL) shall not exceed 10733 KLD
1.5	NOC from the concerned Authorities shall be obtained before the start of the construction of the plant for drawing of water for the project activities. State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission.
1.6	As proposed, no industrial effluent shall be generated from the proposed fertilizer plant as effluent shall be recycled/reused in the closed loop. Total sewage generated from the integrated unit will be 400 KLD, which shall be treated in the STP. Treated sewage shall be recycled for horticulture purposes within the plant premises. No effluent/treated water shall be discharged outside the plant premises. This unit shall maintain Zero Liquid Discharge (ZLD).
1.7	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 servers. For online continuous monitoring of effluent, the unit shall install web cameras with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
1.8	Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plans for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
1.9	The PP shall develop a greenbelt of at least 10 - 15 m width over an area of 53.7 ha of total area) within the project site mainly along the plant periphery, preferably within a year of the grant of EC. Tree saplings selected for the plantation should be of sufficient height, preferably 6-ft shallbe planted in greenbelt area. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP shall annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density

S. No	EC Conditions
	of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.10	Plantation of saplings shall be carried out as a part of tree plantation campaign "EK PED MA ke NAAM" and details of the same to be uploaded in the MeriLiFE portal (https://merilife.nic.in) in respect to this Ministry's OM No. IA3-22/3/2024-IA.III(E-241594) dated 24th July 2024.
1.11	A separate Environmental Management Cell (having qualified persons 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 and shall also engage Environment Officials. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.12	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is 1302.05 Cr (Capital cost) and 21.8Cr per annum (Recurring cost) shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
1.13	The rainwater collection system shall be provided at the project site with the rain water collection pond having capacity of 172900 m3.
1.14	Monitoring of the compliance of EC conditions shall be submitted with a third party audit every year.
1.15	As proposed, an amount of 95 Crore shall be allocated towards CER.
1.16	No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
1.17	Gypsum Pond and yard along with Storage, disposal, usage shall be designed as per CPCB guidelines. Gypsum Pond base and yard shall be provided with HDP liner and having facility to collect leachate and its treatment facility. It shall be ensured that rain water shall not enter the said area and it should be provided with garland drain and collecting pit. Gypsum pond and yard shall be monitored at regular intervals and data be transferred to CPCB/SPCB/RO, MoEF&CC.
1.18	Captive secure landfill site shall be designed as per CPCB guidelines. Baseline data for soil and ground water shall be provided to RO, MoEF&CC. Provision for leachate collection and treatment shall be provided. Environmental parameters shall be monitored on quarterly basis and submitted to CPCB/SPCB/ RO, MoeF&CC.
1.19	The project proponent shall comply with the environment norms for ‘Fertilizer Industry’ as notified

S. No	EC Conditions
	by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29th December, 2017under the provisions of the Environment (Protection) Rules, 1986.
1.20	The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
1.21	All the hazardous waste shall be managed and disposed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration sites or sent for coprocessing. Solid waste shall be segregated into dry and wet garbage at site in accordance with the Solid Waste Management Rules, 2016. Wet waste shall be converted into compost and used as manure for greenbelt development.
1.22	All necessary precautions shall be taken to avoid accidents and an action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The occupier of new as well as expansion projects shall be required to comply with the provisions of the MSHIC Rules, 1989 including notifying their activities or seeking site approval from the concerned authorities, to address operational safety aspects. In doing so, various schedules, particularly Schedule-5 of the said rules may be referred. PP shall comply with the safety measures proposed for handling of styrene to prevent accidents and exposure.
1.23	The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
1.24	The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
1.25	The occupational health center 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/masks for personal protection.
1.26	The unit shall make the arrangement for protection of possible fire hazards during the manufacturing process in material handling. Fire-fighting system shall be as per the norms.
1.27	The solvent management shall be carried out as follows: (a) Reactor shall be connected to a 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 fireproof. The solvent storage tanks shall be provided with a breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
1.28	The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rainwater 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

S. No	EC Conditions
	wastewater shall not be allowed to mix with storm water.
1.29	The PP 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 a vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
1.30	PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to the concerned authority.
1.31	The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Standard EC Conditions for (Chemical fertilizers)

1.

S. No	EC Conditions
1.1	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
1.2	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
1.3	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
1.4	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. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
1.5	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and

S. No	EC Conditions
	administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
1.6	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
1.7	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
1.8	The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
1.9	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
1.10	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
1.11	The project authorities 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 and the date of start of the project.
1.12	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

Additional EC Conditions

N/A

Signature Not Verified

Digitally Signed by : Mr A N Singh
Member Secretary, MoEFCC (EC)

Date: 04/11/2024