सत्यमेव जयते

File No: J-11011/84/2016-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **02/01/2024**

To,

Shri. Jaswanth Reddy N
M/s. TGV SREE RAYALASEEMA ALKALIES AND ALLIED CHEMICALS LIMITED
Sree Rayalaseema Alkalies and Allied Chemicals Limited Gondiparla Village Kurnool Mandal Dist AP 518004 , Gondiparla, KURNOOL, ANDHRA PRADESH, , 518004
sraaclab@rediffmail.com

Subject: **Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit with the production capacity from 600 TPD to 850 TPD, Chloromethanes - 238.2 TPD to 333.48 TPD, Chlorodifluoromethane – 10 TPD to 14 TPD, Captive Power Plant – 31MW, Castor Oil and Fatty Acid Plant- 498 TPD to 697 TPD located at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/AP/IND3/431931/2023 dated 23/08/2023 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.	EC23A1601AP5468616N
(ii) File No.	J-11011/84/2016-IA-II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	4(d) Chlor-alkali industry,5(f) Synthetic organic chemicals industry
(vi) Sector	Industrial Projects - 3
(vii) Name of Project	Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B,

	62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited.
(viii) Name of Company/Organization	SREE RAYALASEEMA ALKALIES AND ALLIED CHEMICALS LIMITED
(ix) Location of Project (District, State)	KURNOOL, ANDHRA PRADESH
(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 expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit with the production capacity from 600 TPD to 850 TPD, Chloromethanes - 238.2 TPD to 285.84 TPD, Chlorodifluoromethane – 10 TPD to 12 TPD, Captive Power Plant – 31MW, Castor Oil and Fatty Acid Plant- 498 TPD to 697 TPD located at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited.

3. The project/activity is covered under Category 'A' of Item 4(d) Chlor-Alkali and 5(f) Synthetic organic chemicals, of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area. .

5. In view of this, the proposal was placed in this 69th EAC meeting held on 17th November, 2023.

6. Deliberations by the EAC:

i. As per OM dated 11.4.2022, Ministry has issued guidelines to deal with expansion proposals which are received under Para (ii) (a) of EIA notification, 2006 in respect of the developmental projects listed in the schedule subject to the fulfillment of certain criteria.

ii. Accordingly, the PP has submitted point-wise status of the Criteria for Expansion Under 7(ii)(a) of EIA Notification for Expansion up to 50%:

S.No	Criteria	Compliance	
1	The project proponent has gone through the public hearing process, at least once, for its existing EC capacity on which expansion is being sought, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments	Public hearing was conducted on 29.11.2017 at project site for existing EC capacity of 1020 TPD.	
2	There should not be change in Category of the project from 'B2' to 'B1' or 'A' due to proposed modernisation or expansion	No change in category of project. Chlor-Alkali (4d) and Synthetic Organic Chemicals (5 f) - Category "A"	
3	There is no additional land acquisition or forest land diversion involved for the proposed expansion or there is no increase in lease area with regard to mining vis-à-vis the area mentioned in the EC, based on which public hearing has been held earlier	The proposed expansion is within existing site area of 152.4 Ha	
4	The proposed expansion shall not be more than 50% of production capacity as mentioned in the prior EC, issued on the basis of public hearing held and the same shall be allowed in minimum three phases.	The proposed expansion is	
		Chlor-Alkali Phase I: 19.6 % Phase II: 19.6% Total: 39.2%	Chloromethanes Phase I: 20 % Phase II: 20% Total: 40%
5	Predicted environmental quality parameters arising out of proposed expansion/ modernization shall be within the prescribed norms and the same shall be maintained as per prescribed norms.		
6	The proposed expansion should not result in reduction in the greenbelt area as stipulated in the earlier EC, or if the existing ratio of greenbelt is more	The proposed expansion does not result in reduction of greenbelt area as	

	than 33%, after expansion it should not reduce below 33%	stipulated in earlier EC. Existing greenbelt area 89.03 Ha (58.42%)
7	The project proponent should have satisfactorily complied the conditions stipulated in the existing EC(s) and satisfactorily fulfilled all the commitments made during the earlier public hearing / consultation process dings and also the commitments given while granting previous expansion, as may be applicable. This shall be duly recorded in the certified compliance report issued by IRO/CPCB/SPCB, which not be more than one year old at the time of submission of application.	Budget spent for CER is Rs. 408.45 lakhs IRO Certified Compliance Report file no. IRO/VIJ/EPA/EC-A/101/06-67/2022 Dated 15.12.2022 Proposal No. IA/AP/IND3/431931/2023 Submission Date: 23.08.2023
	Public consultation shall be undertaken [if applicable as per table below] by obtaining response in writing as per para 7 III (ii) (b) of EIA Notification 2006, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments	Not Applicable
	Effluent monitoring including air quality monitoring systems as specified in the existing EC, if stipulated, should have been installed.	Installed Online Continuous Monitoring System (OCMS) for effluent on 16.06.2015 connected to CPCB/SPCB on 17.06.2015 Installed Online Continuous Monitoring System (OCMS) for Air Quality on 11.11.2017 and connected to CPCB/SPCB on 15.11.2017

iii. PP has proposed expansion of the following activities in two phases (phase -1: 20% and Phase – 2 for another 20% after achieving phase -I) and details are as given below:

iv. PP has submitted EIA/EMP report as per the requirement of the OM dated 11.4.2022.

v. The PP reported that certified compliance report of the existing EC was obtained from the Integrated Regional Office of MoEFCC, Vijayawada, Andhra Pradesh vide letter no. IRO/VIJ/EPA/EC-A/101/06-67/2022 dated 15.12.2022. Six conditions are partially complied for which Action Taken Report for the partially complied conditions has been submitted to IRO Vijayawada, Andhra Pradesh vide e-mail dated 20.12.2022.

vi. Details of the Existing & Phase -wise Proposed Capacity:

Name of Activity	**Existing (TPD)**	**Proposed**		**Total (TPD)**
		Phase I	**Phase II**	
Chlor-Alkali	1020	200	200	1420
Chloromethanes	238.2	47.64	47.64	333.48
Captive/Co- gen Power Plant	76	30	---	106

vii. Details of product list are as follows:

S. No.	**Product Name**	**Unit**	**Capacity**			
			Existing/ Permitted	**Proposed**		**Total After Expansion**
				Phase I	**Phase II**	
I. Chlor-Alkali Plant						
1	Caustic Soda Lye (Or) Flakes	TPD	1020	200	200	1420
	Potassium Hydroxide Lye (or) Flakes (100 % basis)	TPD				
2	Liquid Chlorine	TPD	600	120	120	840

II. Chloromethanes						
1	Methyl Chloride	TPD	1.2	0.24	0.24	1.68
2	Methylene Chloride	TPD	158	31.6	31.6	221.2
3	Chloroform	TPD	79	15.8	15.8	110.6
	Total – Chloromethanes		238.2	47.64	47.64	333.48
III. Chlorodifluoromethane						
1	Chlorodifluoromethane (R22)	TPD	10	2	2	14
IV. Captive Power Plant						
1	Captive Power Plant (Coal based)	MW	76	30	----	106
2	Power generation Furnace Oil#	MW	31		----	31
V. Castor Oil and Fatty Acid Plant						
1	Oil and Fatty Acid Products (Non-EC Products)	TPD	498	99.5	99.5	697
By-Products						
I. Chlor-Alkali Plant						
1	Hydrochloric Acid (100%)	TPD	313	56.05	56.05	425.1
2	Hydrogen Gas	Nm3	285600	55996	55996	397592
3	Sodium Hypochlorite (100% Cl2 basis)	TPD	15	3	3	21
4	Barium Sulphate	TPD	10	----	----	----
5	Potassium Carbonate	TPD	50	----	----	50
6	Sodium Sulphate	TPD	10	2	2	14
7	Calcium Hypochlorite (100% Cl2 basis)	TPD	10	----	----	----
8	Calcium Sulphate	TPD	2	----	----	----
II. Chloromethanes Plant						
1	Carbon tetrachloride*	TPD	12	2.4	2.4	16.8
2	Hydrochloric Acid (100 %)	TPD	47	9.4	9.4	65.8
III. Chlorodifluoromethane Plant						
1	Hydrochloric Acid (100 %)	TPD	8.27	1.65	1.65	11.57

viii. During Phase -I, PP will install utilities namely 1*120 TPH Coal Fired Boiler, 1* 20 Hydrogen gas fired boiler and 1*55 lac Salt Furnace

ix. Phase -wise water requirement details as given below:

Description	**Quantity (KLD)**		
	Fresh	**Recycle**	**Total**
Existing	14650	517	15167

Proposed (Phase I)	2915.6	1205.25	4120.85
Proposed (Phase II)	470.6	601.25	1071.85
Total after expansion	18036.2	2323.5	20359.7

x. Phase -wise effluent generation and treatment details as given below:

S. No	Description	Quantity (KLD)				Mode of Treatment / Disposal
		Existing/ Permitted	Proposed		After Expansion	
			Phase I	Phase II		
I	**Chlor-Alkali (Or) Potassium Hydroxide**					
1	Process	191.5	37.5	37.5	266.6	Sent to effluent recycling plant of Chlor-alkali (ETP-1) followed by Ultra filtration and RO. Permeate reused as a process water, utility make-up and rejects sent for brine saturation.
2	Washings					
3	Gland Seal					
4	Cooling towers blow down	145.5	28.5	28.5	202.5	
5	Domestic	93	-----	-----	93	Sent to Castor Oil & Fatty acid plant effluent treatment plant (ETP-2), and treated wastewater reused for greenbelt development
	Total - I	430	66.1	66.1	562.1	

S. No	Description	Quantity (KLD)				Mode of Treatment/Disposal
		Existing/ Permitted	Proposed		After Expansion	
			Phase I	Phase II		
II	**Chloromethanes and Chlorodifluoromethanes**					
1	Cooling towers blow down	114	22.8	22.8	159.6	Sent to effluent treatment plant of Chlor-alkali (ETP-1) followed by Ultra filtration and RO. Permeate reused as process water, utility make-up and rejects sent for brine saturation.
2	Scrubbers	40	8	8	56	Sent to Brine make-up in chlor-alkali plant.
3	Domestic	15	3	3	21	Sent to Castor Oil & Fatty acid plant effluent treatment plant (ETP-2), and treated wastewater reused for greenbelt development
	Total – II	**169**	**33.8**	**33.8**	**236.6**	

S. No	Description	Quantity (KLD)				Mode of Treatment / Disposal
		Existing/ Permitted	Proposed		After Expansion	
			Phase I	Phase II		
III	**Captive/Co-Gen Power Plant**					
1	Floor Washings	30	-----	-----	30	Sent to effluent recycling plant of Chlor-alkali (ETP-1) followed by Ultra filtration and RO. Permeate reused as a process water, utility make-up and rejects sent for brine saturation.
2	Cooling towers blow down	600	200	-----	800	
3	DM Plant /RO Rejects	405	150	-----	555	
4	Domestic	50	-----	-----	50	Sent to Castor Oil & Fatty acid plant effluent treatment plant (ETP-2), and treated wastewater reused for greenbelt development
	Total –III	**1085**	**350**	**-**	**1435**	

S. No	Description	Quantity (KLD)				Mode of Treatment / Disposal
		Existing/ Permitted	Proposed		After Expansion	
			Phase I	Phase II		
IV	Non-EC Products (Castor Oil & Fatty Acids)	70	12.8	12.8	95.6	Sent to Castor Oil & Fatty acid plant effluent treatment plant (ETP-2), and treated wastewater reused for greenbelt development
	Total –IV	**70**	**12.8**	**12.8**	**95.6**	
	Grand Total (I+II+III+IV)	**1754**	**462.7**	**112.7**	**2329.3**	

xi. Solid waste generation and its disposal methods:

S. No	Description	Units	Permitted	Proposed		Total	Method of Disposal
				Phase I	Phase II		
Chloro-Alkali Plant							
1	Sludge from Pretreatment of brine on dry basis	TPD	25	5	5	35	Secured landfill within Plant premises
2	Barium Sulphate	TPD	10	---	---	---	Sold as By-Product
3	Sodium Sulphate	TPD	10	1.95	1.95	13.9	Sold as By-Product
Potassium Hydroxide							
1	Sludge	TPD	1.42	0.3	0.3	2	Secured landfill within Plant premises
Chloromethanes Plant							
1	Calcium Chloride	TPD	0.04	0.01	0.01	0.06	Secured landfill within Plant premises
2	Silica gel	TPD	0.036	0.005	0.005	0.05	
3	Bottom residue	TPD	0.5	0.1	0.1	0.7	Sent to In-house Incinerator
4	Spent Sulfuric acid (75-80%)	TPD	11.9	2.4	2.4	16.7	Sold as product

S. No	Description	Units	Permitted	Proposed		Total	Method of Disposal
				Phase I	Phase II		
Chlorodifluoromethane (R22)							
1	Calcium Fluoride	TPD	1.2	0.25	0.25	1.7	Secured landfill within Plant premises / Sold to hydrogen fluoride manufacturers
2	Spent Sulfuric Acid (75%)	TPD	17.3	3.45	3.45	24.2	Sold as product
3	Antominy Pentoxide	TPD	0.2	0.04	0.04	0.28	Recovered & reused
Utilities							
1	Ash from Coal fired Boilers	TPD	570	192	---	762	Sold to Cement/ brick manufacturers
2	Ash from Husk fired boiler	TPD	16.5	---	---	---	Sold to Brick manufacturers
3	Sludge from FO of DG sets	KL	0.9	---	---	0.9	Sent to authorized recyclers
4	Sludge from ETP	Kg/day	280	20	20	320	Secured landfill within Plant premises
5	Waste Oils	TPA	0.3	---	---	0.3	Reused as secondary fuel

6	Used Batteries	TPD	35	---	---	35	Sent to authorized recyclers

7. Based on the proposal submitted by the project proponent and recommendations made by EAC in 69th EAC meeting, Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance **for Phase-I i.e., 20% expansion, subject to compliance of specific terms and conditions and general terms of conditions as under** to the project "***Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit with the production capacity from 600 TPD to 850 TPD, Chloromethanes - 238.2 TPD to 333.48 TPD, Chlorodifluoromethane – 10 TPD to 14 TPD, Captive Power Plant – 31MW, Castor Oil and Fatty Acid Plant- 498 TPD to 697 TPD located at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited-Reconsideration of Environmental Clearance under para 7(ii)a as per OM dated 11th April, 2022"*** under the provisions of the EIA Notification, 2006, and the amendments therein.

A. Specific Conditions:

a. APCE ESP with adequate stack height shall be provided to proposed coal based 120 TPH boiler for controlling the particulate matter emissions within the statutory limit of 50 mg/Nm3. Adequate stack height shall be provided to proposed 1 x 20 TPH hydrogen gas fired boiler and 1 x 55 lac salt furnace. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

b. Total fresh water requirement for 20% expansion shall not exceed 17565.55 m3/day. The required water shall be drawn from Tungabhadra River through infiltration wells. The PP shall ensure that water supply should not be above the permissible limit and fresh water shall be withdrawn only after obtaining requisite approval of the Concerned Authority. The PP shall submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

c. The PP shall develop /maintain greenbelt over an area of at least 33% by planting about 10,000 number of saplings (Overall total plantation in the premises 2,33,575 approx.) preferably, within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should 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 of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

d. 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 HOD EHS Division- HOD Q&A division- HOD O& F division - HOD CMS division. 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.

e. 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 propose under EMP is 10.85 crores (Capital cost) and 10.66 crores per annum (Recurring cost) shall be kept in 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.

f. Total effluent generation for 20%expansion shall not exceed 2216.7 m3/day and the same shall be treated in the efficient Effluent Treatment Plan. Treated effluent shall be recycled/ reused for manufacturing process, utility make-up and greenbelt development. Rejects from RO shall be used for brine saturation. No wastewater or treated water from the unit shall be discharged outside the premises and Zero Liquid Discharge shall be maintained for all the units.

g. The use of cleaner fuel shall be explored.

h. Bottom residue from chloromethanes shall be sent to inhouse incinerator. ETP sludge and process inorganic residues shall be sent to secured landfill within the plant premises. The same mechanism shall also be continued for the existing units also.

i. All the hazardous waste shall be managed and disposed as per the HWM Rules 2016. Hazardous waste such as Distillation Residue and Off Specification Products shall be either sent to common incineration site or sent for co-processing.

j. 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.

k. The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.

l. 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.

m. All necessary precautions shall be taken to avoid accidents and 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 schedule, particularly Schedule-5 of the said rules may be referred.

n. 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.

o. 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 camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

p. 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.

q. The 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.

r. 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 plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

s. 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.

t. The 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 fire 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.

u. The 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.

v. PP shall obtain registration under Ozone Depleting Substances (Regulation and Control) Rules 2000 as amended from time to time for generation of Carbon Tetra Chloride as byproduct and production of Chlorodifluormethane (R22), which are Ozone Depleting Substances for exclusively for feedstock purposes.

w. 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

B. General Conditions:

i. 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.

ii. 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.

iii. The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

iv. 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).

v. 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 administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

vi. 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.

vii. 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.

viii. 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.

ix. 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.

x. 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.

xi. 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.

xii. 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.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

This issues with the approval of the Competent Authority.

Copy To

1. The Principal Secretary, Environment and Forests Department Secretariat, Government of Andhra Pradesh, Hyderabad
2. Inspector General of Forests, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Vijayawada Green House, Gopalareddy Road, Vijayawada – 520010, Andhra Pradesh
3. The Member Secretary, Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, APIIC Colony Road, Gurunanak Colony, Autonagar, Vijayawada- 520007.
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 32
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 **Kurnool**, Andhra Pradesh
7. Guard File/Monitoring File/Website/Record File

Annexure 1

Additional EC Conditions

N/A

Annexure 2

Details of the Project

S. No.	Particulars	Details
a.	Details of the Project	Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited.
b.	Latitude and Longitude of the project site	15.83743835315046,78.05832996426965 15.84737843794089,78.06826402967818

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>c.</td><td>Land Requirement (in Ha) of the project or activity</td><td>
<table>
<tr><th>Nature of Land involved</th><th>Area in Ha</th></tr>
<tr><td>Non-Forest Land (A)</td><td>152.4</td></tr>
<tr><td>Forest Land (B)</td><td>0</td></tr>
<tr><td>Total Land (A+B)</td><td>152.4</td></tr>
</table>
</td></tr>
<tr><td>d.</td><td>Date of Public Consultation</td><td>Public consultation for the project was held on</td></tr>
<tr><td>e.</td><td>Rehabilitation and Resettlement (R&R) involvement</td><td>NO</td></tr>
<tr><td>f.</td><td>Project Cost (in lacs)</td><td>1480</td></tr>
<tr><td>g.</td><td>EMP Cost (in lacs)</td><td>1085.4</td></tr>
<tr><td>h.</td><td>Employment Details</td><td>4310</td></tr>
</table>

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated: 21.09.2023

MINUTES OF THE 64th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 13th SEPTEMBER, 2023

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Video Conferencing (VC)

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 63rd EAC Meeting.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman. The EAC confirmed the MoM.

Agenda No. 64.1

Proposed Pesticides Intermediates & Specialty Chemicals manufacturing unit with Production Capacity of 100 MT/Month located at Plot No. C-157, Saykha Industrial Estate, Taluka -Vagra, District -Bharuch, Gujarat by M/s. Niyam Organic - Reconsideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/435715/2023; File No. IA-J-11011/45/2022-IA-II(I)]

1. The proposal is for Environmental Clearance for the Proposed Pesticides Intermediates & Specialty Chemicals manufacturing unit with production capacity of 100 MT/Month located at Plot No. C-157, Saykha Industrial Estate, Taluka -Vagra, District -Bharuch, Gujarat by M/s. Niyam Organic.

xvi) The 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.

xvii) 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

xviii) 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.

Agenda No. 64.4.

Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit with the production capacity from 600 TPD to 850 TPD, Chloromethanes - 238.2 TPD to 333.48 TPD, Chlorodifluoromethane – 10 TPD to 14 TPD, Captive Power Plant – 31MW, Castor Oil and Fatty Acid Plant- 498 TPD to 697 TPD located at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited- Consideration of Environmental Clearance

[Proposal No. IA/AP/IND3/431931/2023; File No. J-11011/84/2016-IA-II(I)]

1. The proposal is for EC for the Expansion of Chlor-Alkali and Synthetic Organic Chemicals manufacturing unit with the production capacity from 600 TPD to 850 TPD, Chloromethanes - 238.2 TPD to 333.48 TPD, Chlorodifluoromethane – 10 TPD to 14 TPD, Captive Power Plant – 31MW, Castor Oil and Fatty Acid Plant- 498 TPD to 697 TPD located at Sy. No. 51/1, 2A, 2B, 2C1, 2C2, 2C3, 56/1, 58/1, 59/1, 60, 62/3/2D2, 2C1/A2, 2C1/A3, 2C2/C, 2G/1, 2E, 2F, 1A, 1B, 62A, 62 B, 63, 64, 70/C2, 72/P, Gondiparla village, Kurnool mandal and district, Andhra Pradesh by M/s. TGV SRAAC Limited.

2. The project/activity is covered under Category 'A' of Item 4(d) Chlor-Alkali and 5(f) Synthetic organic chemicals, of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The PP applied for the Environment Clearance in the Common Application Form under clause 7 (ii) as per OM dated 11- April -2022 and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is an **Expansion case.** The proposal is placed in this 64th EAC Meeting held on 13th September, 2023, wherein the PP and an accredited Consultant, M/s. Team Labs and Consultants, (NABET Accreditation No. NABET/EIA/2124/RA 0242 Valid till 24.09.2024], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 152.4 ha which will be used for proposed expansion and no additional land will be acquired for the proposed expansion, no R&R is involved in the Project. The details of products are as follows:

S. No.	Product Name	Unit	Capacity			
			Existing/ Permitted	Proposed		Total After Expansion
				Phase I	Phase II	
I. Chlor-Alkali Plant						
1	Caustic Soda Lye (Or) Flakes	TPD	1020	200	200	1420
	Potassium Hydroxide Lye (or) Flakes (100 % basis)	TPD				
2	Liquid Chlorine	TPD	600	120	120	840
II. Chloromethanes						
1	Methyl Chloride	TPD	1.2	0.24	0.24	1.68
2	Methylene Chloride	TPD	158	31.6	31.6	221.2
3	Chloroform	TPD	79	15.8	15.8	110.6
	Total – Chloromethanes		**238.2**	**47.64**	**47.64**	**333.48**
III. Chlorodifluoromethane						
1	Chlorodifluoromethane (R22)	TPD	10	2	2	14
IV. Captive Power Plant						
1	Captive Power Plant (Coal based)	MW	76	30	----	106
2	Power generation Furnace Oil#	MW	31		----	31
V. Castor Oil and Fatty Acid Plant						
1	Oil and Fatty Acid Products (Non-EC Products)	TPD	498	99.5	99.5	697
By-Products						
I. Chlor-Alkali Plant						
1	Hydrochloric Acid (100%)	TPD	313	56.05	56.05	425.1
2	Hydrogen Gas	Nm3	285600	55996	55996	397592
3	Sodium Hypochlorite (100% Cl_2 basis)	TPD	15	3	3	21
4	Barium Sulphate	TPD	10	----	----	----
5	Potassium Carbonate	TPD	50	----	----	50
6	Sodium Sulphate	TPD	10	2	2	14
7	Calcium Hypochlorite (100% Cl_2 basis)	TPD	10	----	----	----

8	Calcium Sulphate	TPD	2	----	----	----
II. Chloromethanes Plant						
1	Carbon tetrachloride*	TPD	12	2.4	2.4	16.8
2	Hydrochloric Acid (100 %)	TPD	47	9.4	9.4	65.8
III. Chlorodifluoromethane Plant						
1	Hydrochloric Acid (100 %)	TPD	8.27	1.65	1.65	11.57

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

6. The PP reported that the Ministry has issued EC earlier vide letter no J-11011/84/2016-IA-II (I) dated 01.05.2018 for expansion of Chlor-Alkali plant and synthetic organic chemicals manufacturing unit to M/s. Sree Rayalaseema Alkalies and Allied Chemicals Limited and subsequently the unit has obtained transfer of EC for name change in favor of M/s. TGV SRAAC Limited in EC vide letter no. F. No. J-11011/84/2016-IA-II (I) dated 28.09.2021.

7. The PP reported that certified compliance report of the existing EC was obtained from the Integrated Regional Office of MoEFCC, Vijayawada, Andhra Pradesh vide letter no. IRO/VIJ/EPA/EC-A/101/06-67/2022 dated 15.12.2022. Six conditions are partially complied for which Action Taken Report for the partially complied conditions has been submitted to IRO Vijayawada, Andhra Pradesh vide e-mail dated 20.12.2022.

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. Interstate boundary between Telangana and Andhra Pradesh is at a distance of 1.3 km in northeast direction. There are two reserve forests in the study area. Gadidmadugu RF at a distance of 5.5 km in east direction. Pullaiah RF at a distance of 9.3 km in southwest direction and No Schedule I species exist within 10 km study area of the project.

9. The PP reported that the **Ambient air quality** monitoring was carried out at eight locations during December 2022 -February 2023 and the baseline data indicates that ranges of concentrations of PM_{10} (38-52 µg/m^3), $PM_{2.5}$ (17-27 µg/m^3), SO_2 (9-14 µg/m^3) and NO_2 (11-26 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLC_S after the proposed project would be 0.72 µg/m^3, 3.07 µg/m^3, and 4.54 µg/m^3 with respect to PM_{10}, SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Ambient noise levels** are observed from 48 dB (A) to 56 dB (A) during day time and 37 dB (A) to 45 dB (A) during night time. The values are within the prescribed limits. **Surface water Quality**: pH ranges from 7.58 to 7.6, total dissolved solids (TDS) ranges from 466 to 472 mg/l, BOD varies from 17.2 to 18.8 mg/l, COD varies from 57 mg/l and total hardness varies from 210 to 240 mg/l. **Ground water Quality**: pH ranges from 6.9 to 7.5, total dissolved solids (TDS) ranges from 226 to 901 mg/l, chlorides varies from 42 to 232 mg/l and total hardness varies from 151 to 601 mg/l. **Soil Quality**: The analysis results show that soil is basic in nature as pH value ranges from 6.1 to 7.8 with organic matter 0.63% - 2.35%. The concentration of Potassium (174 to 256 mg/kg), Sodium (144 to 224 mg/kg), Calcium (139 to 554 mg/kg) and Magnesium (90 to 373 mg/kg)

10. The PP reported that the total water requirement after the expansion is 20359.7 KLD out of which 18036.2 KLD will be fresh water and 2323.5 KLD is recycled. The required water is drawn from Tungabhadra River through infiltration wells. The unit obtained permission to abstract water from Tungabhadra River for a quantity of 20 MLD. Total effluent of 2329.3 m^3/day will be treated through "Zero Liquid Discharge" based effluent treatment system and treated wastewater reused for process, utility make-up and greenbelt development. Rejects from RO will be used for brine saturation.

11. The PP reported that the Power requirement after expansion will be 149.3 MW including existing 107.2 MW and will be met from AP Transco and captive power plant. Existing unit has standby DG sets of capacity 4 x 6.2 MW, 3 x 500 kVA DG sets as standby during power failure. Stack (height 4 m) provided as per CPCB norms to the DG sets of 3 x 500 kVA which will be used as standby during power failure.

12. Existing unit has 1 x 110 TPH, 1 x 100 TPH, 1 x 42 TPH coal fired boilers, 1 x 3 TPH oil fired boiler (standby), 1 x 4 TPH oil and hydrogen gas fired boilers. Electro Static Precipitators and a stack with height of 80m, 69m and 55m for 1 x 110 TPH, 1 x 100 TPH, 1 x 42 TPH coal fired boilers respectively are installed for controlling the Particulate emissions (within statutory limit of 115 mg/Nm^3). Additionally, 1 x 120 TPH coal fired boiler and 1 x 20 TPH hydrogen gas fired boiler will be installed. Electro Static Precipitators and a stack with height of 80m for 1 x 120 TPH coal fired boiler will be installed and effective stack height of 80m for 1 x 20 TPH hydrogen gas fired boiler will be installed for controlling the particulate emission within statutory limit of 115 mg/Nm^3 for the proposed boilers

13. **Details of Process Emissions Generation and its Management**: The gaseous emissions from Chlor-Alkali process are Chlorine and Hydrogen Chloride vapors. Scrubbers are provided to neutralize sniff gases effectively. The secondary gaseous pollutant from chloro-alkali plant is hydrogen chloride gas emissions. To avoid emissions in the plant, tail gas vents are connected to a water scrubber and the lean acid formed is used for absorption of Hydrogen chloride gas in absorber. The gaseous emission from Chloromethane plant is chlorine and hydrogen chloride vapours. HCl gas produced from thermal chlorination unit is used to produce methyl chloride. Excess HCl available is absorbed in HCl absorber to produce 32% HCl. To avoid emissions from HCl absorber, tail gas vents are connected to a tail gas tower followed by organic stripper to remove organics. The gaseous emission from Chlorodifluoromethane plant is HCl which is sent to Hydrochloric acid absorption system, to produce 28 to 30% HCl.

14. **Details of Solid /Hazardous Waste Generation and its Management:** Sludge is generated during brine purification stage. Barium sulfate and sodium sulfate is being recovered, which are sold as by products. The sludge generated form effluent treatment plant will be disposed to landfill which contains mostly inorganics. Used silica gel, calcium chloride, Calcium Fluoride, Antimony Pentoxide and Spent Sulfuric Acid are the wastes generated from the Chloromethane and Chlorodifluoromethane process. Used silica gel and calcium chloride are sent to secured landfill within plant premises. Spent sulfuric acid sold as by-product and Calcium Fluoride is sold to hydrogen fluoride manufacturers. Waste oil and used batteries from the DG sets are sent to authorized recyclers. Other solid wastes expected from the unit are containers, empty drums

which are returned to the product seller or sold to authorized buyers after detoxification. Coal ash from boiler is sold to cement/ brick manufacturers.

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹10.85 crores (capital) and the Recurring cost (operation and maintenance) will be about. ₹10.66 crores The industry proposes to allocate 10.66 lakhs towards CER.

16. Industry has already developed Greenbelt over an area of 58.42 % i.e., 89.03 ha out of 152.4 ha of area of the project site.

17. The PP reported that the proposed expansion proposal was submitted under 7 (ii) (a) of the EIA notification. The office memorandum (F.No. IA3-22/10/2022-IA. III [E 177258]) guidelines which envisages issue of prior environmental clearance upto 40% of the capacity by exempting Public Hearing.The EIA/EMP report has been prepared for 40% expansion, where as per the said OM, in the Phase –I 20% expansion is only permitted.

18. The PP proposed to set up an Environment Management Cell (EMC) consisting of HOD EHS Division- HOD Q&A division- HOD O& F division - HOD CMS division for the functioning of EMC.

19. The PP reported that the total carbon emission from the project in operation phase will be 51208.9 Tons /year and by adopting Greenbelt and Afforestation and solar power the amount of carbon offset that could be achieved will be 71667.9 Tons/year. Therefore, the net contribution of Carbon is 20459 Tons/year.

20. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.

21. The estimated project cost is Rs 1480 crores including existing investment of Rs. 1200 crores. Total Employment will be 3785 persons as direct and 525 persons indirect after expansion.

22. **Deliberations by the EAC:**

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 Project Proponent in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking to the effect 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 project proponent.

It was informed to the EAC that the para 7(ii) of the EIA Notification, 2006, inter-alia, mentions that *all applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernisation of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment and public consultations and the application shall be appraised accordingly for grant of environmental clearance.*

The EAC deliberated on the expansion proposal under para 7 (ii) of the EIA Notification, 2006 as the capacity increases and there is no requirement for obtaining fresh TOR etc. The project proponent has prepared the Environmental Impact Assessment Report for the proposed expansion. The Committee deliberated on the report and the pollution mitigation measure considered for the proposed project. The EAC noted that the EIA/EMP report has been prepared for 40% expansion as per the OM No. IA3-22/10/2022-IA. III [E 177258] whereas, as per the said OM, in the Phase –I 20% expansion is only permitted.

The EAC inter-alia, deliberated on the certified compliance and the Action Taken Report submitted to IRO, STP, Greenbelt development, action plan for decarbonisation and advised the PP to submit the following:

- Action taken report for the partially complied conditions.
- Setting up of STP for the treatment of domestic wastewater.
- Action plan for greenbelt development.
- Tentative Action plan for decarbonization

Further, w.r.t the partial compliance to the specific condition no-X of the EC, i.e. *Process organic residue and spent carbon, if any, shall be sent to the Cement industries ETP Sludge, process inorganic & evaporation salt shall be disposed off to the TSDF,* the EAC sought action plan for the compliance or detailed justification for the current disposal mechanism.

The PP submitted the above information/documents including the following request/justification w.r.t the said specific condition no.-X and EAC found these to be satisfactory.

Sr. No.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/read as	Justification/ reasons
1.	Page No. 4 of 7. Point No.	Process organic residue and spent	Bottom residue from Chloromethanes shall	Initially incinerator with a capacity of

	(X) of condition 10.	carbon, if any, shall be sent to the Cement industries ETP Sludge, process inorganic & evaporation salt shall be disposed off to the TSDF	be sent to inhouse incinerator. ETP sludge, process inorganic residues shall be sent to Secured landfill within Plant premises	343 kg/hr was envisaged for incineration of bottom residues and CCl_4 which is a by-product, subsequently MoEFCC allowed $CC1_4$ to be used as feed stock, thereby reducing the load on incinerator by 95%. The present generation of bottom organic residue is 0.5 TPD which will increase to 0. 7 TPD after expansion. It is proposed to use existing incinerator for incineration of organic residues after expansion. The organic residue from distillation process contains residues of chloromethanes which requires controlled incineration with adequate scrubbing system consisting of HCl scrubbing followed by caustic and sodium bisulfite scrubbing to ensure complete removal of chloromethanes and its adducts, which is absent in co-incineration process of cement plants. It may be noted that

				the operational hours of the incinerator are reduced due to sale of $CC1_4$ as feed stock, thereby reducing impact on air quality. We obtained EC vide letter no. J11011/653/2007-IA II (I) dated 26.12.2007 for disposal of sludge and inorganic residue to in-house secured landfill. We obtained EC for expansion by adding chloromethanes vide letter no. J11011/619 /2009-IA II (I) dated 14.02.2012 for disposal of inorganic residue to in-house secured landfill.

The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested 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 the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation 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 recommendation of EAC and grant of environmental clearance by 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 project proponent 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.

23. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**: -

(i) The PP shall develop /maintain greenbelt over an area of at least 33% by planting about 10,000 number of saplings (Overall total plantation in the premises 2,33,575 approx.) preferably, within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should 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 of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ii) 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 HOD EHS Division- HOD Q&A division- HOD O& F division - HOD CMS division. 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.

(iii) 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 propose under EMP is ₹ 10.85 crores (Capital cost) and ₹ 10.66 crores per annum (Recurring cost) shall be kept in 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.

(iv) The total water requirement after expansion shall not exceed 20359.7 KLD out of which 18036.2 KLD shall be fresh water and 2323.5 KLD will be recycled. The required water shall be drawn from Tungabhadra River through infiltration wells. The PP shall ensure that

water supply should not be above the permissible limit and fresh water shall be withdrawan only after obtaining requisite approval of the Concerned Authority. The PP shall submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(v) Total effluent of 2329.3 m^3/day shall be treated through "Zero Liquid Discharge" based effluent treatment system and treated wastewater reused for process, utility make-up and greenbelt development. Rejects from RO shall be used for brine saturation.

(vi) The use of cleaner fuel shall be explored.

(vii) Bottom residue from chloromethanes shall be sent to inhouse incinerator. ETP sludge and process inorganic residues shall be sent to secured landfill within the plant premises. The same mechanism shall also be continued for the existing units also.

(viii) 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.

(ix) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(x) 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.

(xi) All necessary precautions shall be taken to avoid accidents and 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.

(xii) 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.

(xiii) The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xiv) 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 camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xv) 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.

(xvi) The 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.

(xvii) 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 plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xviii) 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.

(xix) The 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 fire 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.

(xx) The 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.

(xxi) 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 64.5

Manufacturing of various Insecticides for veterinary animal health & household use with the total production capacity of 757.2 MT/Annum unit located at Plot No. 18, Survey No. 300, Vil. Indrad, Ta. Kadi, Dist. Mehsana, Gujarat for the manufacturing of.by M/s. Synergia Sciences Pvt. Ltd- Amendment in EC

[Proposal No. IA/GJ/IND3/441368/2023; File No. IA-J-11011/197/2019-IA II (I)

Annexure-III

List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
3.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
4.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
5.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
6.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
7.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member

8.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-203, Vayu Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819338 E-mail: ramesh.motipalli@nic.in	Member Secretary

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MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

***

Signature Not Verified

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

Date: 02/01/2024