



By Speed post/Online

F.No: IA-J-11011/152/2020-IA-II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
Impact Assessment Division  
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Dated: 25<sup>th</sup> May, 2021

To,

**M/s Smartchem Technologies Ltd. (STL),**  
DFPCL, Sai Hira, Survey no. 93,  
Mundhwa, Pune City, Pune,  
Maharashtra-411036

Email: [chittaranjan.panigrahi@dfpcl.com](mailto:chittaranjan.panigrahi@dfpcl.com)

**Sub: Setting up of Technical Ammonium Nitrate Manufacturing Plant by M/s Smartchem Technologies Ltd. (STL) located at DLCT-1, Domestic Tariff Area, Gopalpur Industrial Park, Chamakhandi, Tehsil- Chatrapur, District- Ganjam, Odhisha -Environment Clearance regarding.**

Sir,

This has reference to your online proposal No. No IA/OR/IND2/160599/2020, dated 12<sup>th</sup> February, 2021 for environmental clearance to the above-mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for setting up of Technical Ammonium Nitrate Manufacturing Plant by M/s Smartchem Technologies Ltd. (STL), located at DLCT-1, Domestic Tariff Area, Gopalpur Industrial Park, Chamakhandi, Tehsil-Chatrapur, District- Ganjam, Odhisha.

3. All Chemical Fertilizer units are listed at S. No. 5(a) of the 'Schedule' of the Environmental Impact Assessment (EIA) Notification under Category 'A' and appraised at Central Level by Expert Appraisal Committee (EAC). The proposal also includes coal-based power generation of 10 MW, which is listed as category 1(d), i.e., thermal power plants in the Schedule under Category 'B' of EIA notification, 2006.

4. The details of proposed products and capacity are as under:-

S. No	Name of Product	Quantity	
		MTPD	MTPA
1.	Nitric Acid (NA)- (100% basis)	900	2,97,000
2.	Technical Ammonium Nitrate Solution (TAN) (100% basis)	1143	3,77,190
3.	Technical Ammonium Nitrate Prill (LDAN or HDAN on campaign basis)	1000	3,30,000



4.	Captive Power Plant (CPP) – (I + II)	14.6 MW	-
	I- From Coal Fired Boiler- Applicability of EC-I	10 MW	-
	II- From waste heat turbo Generator (STG)- (Exempted from EC)	4.6 MW	-

5. Terms of Reference (TOR) was issued by MoEF&CC vide letter of even no. dated 24.07.2020. Since environmental clearance has already been granted to TSSEZL Industrial Park (Gopalpur Industrial Park) by MoEF&CC under item no. 7(c) vide letter no. 21-136/2015-IA.III dated 20.09.2018, thus public hearing/public consultation is exempted for the instant proposal.

6. Total land area for the proposed project is 40.24 Acres. Industry will develop greenbelt in an area of 33.0% i.e., 13.28 acre out of total area of the project. The estimated project cost is Rs.1600 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.92.45 Crores and the Recurring cost (operation and maintenance) will be about Rs.20.70 Crores per annum. Total Employment will be of 1820 persons. It is committed that Rs.8.0 Crore will be spent towards Corporate Social Responsibility.

7. There are no environmentally sensitive components such as National Park, Wildlife Sanctuary, Elephant / Tiger Reserve, forest migratory routes of fauna and wet land present within 10 Km radius of plant site. However, few water bodies are flowing near to the project site i.e., Khari Nala (0.40 Km, W), Bay of Bengal (2.58 Km, E) and Surya River (8.19 Km, W).

8. Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> October 2020 to 31<sup>st</sup> December 2020 and the baseline data indicates the ranges of concentrations as: PM10 (47-110 µg/m<sup>3</sup>), PM2.5 (22.5-58.0 µg/m<sup>3</sup>), SO2 (5.38-15.4 µg/m<sup>3</sup>) and NOx (13.8-40.6 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.78 µg/m<sup>3</sup>, 3.03 µg/m<sup>3</sup>, 4.89 µg/m<sup>3</sup>, 1.17 µg/m<sup>3</sup> and 1.52 µg/m<sup>3</sup> with respect to PM10, PM2.5, NOx, SO2, & NH3. All parameter concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM10.

9. Total water requirement is 7000 KLD. Industrial water will be provided by TSSEZL for industrial and domestic use. Total amount of industrial effluent that is envisaged to be generated is 1614 KLD. Rest water will be re-circulated within the process. A suitable Effluent Treatment Plant (ETP) shall be installed for treatment of all wastewater. Discharge from this ETP shall be routed to the Common ETP developed by TSSEZL within the Industrial Park. In principle, TSSEZL has agreed to accept this STL ETP discharge as input to their CETP. The CETP of TSSEZL is RO based, which will further treat the disposed effluent from STL site. Part of the water supply in form of recycled water from TSSEZL will be from their CETP which will be used within the STL plant as make-up for Cooling Tower.

10. Total connected load of the complex shall be around 16 MW and normal operating load (demand load) will be 12~12.5 MW. 4.6 MW of power requirement will be sourced from NA plant process waste Steam turbo Generator (STG). The start-up power (5 MVA) will be sourced from the State grid. Remaining power requirement will be



sufficed by coal based Captive Power plant. Power from coal based captive power plant will be produced in accordance with the requirement. 2250 kVA and 1250 kVA DG Sets will be used as standby during power failure. Stack Height of 30 m will be provided as per CPCB norms to the proposed DG sets. PP reported that 2 x 60 TPH coal fired boiler will be installed in the plant. ESP and stack of height of 70 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

**11. Details of Process emissions generation and its management:**

Stack No.	Stack Attached to	Stack Height	APCS	Expected Pollutants
1	Tail Gas from Nitric Acid Plant	63 m	Passed through by selective catalytic reduction with ammonia in presence of Vanadium Pentoxide, Platinum or Iron/Chromium oxides catalysts	NOx (NO2)
2	Prilling Tower and TAN plant common scrubbing stack	35 m (Scrubber)	The air is cooled and scrubbed	PM, NH3

**12. Details of Solid waste & Hazardous waste generation and its management:**

The municipal solid waste generation at the project site will be 99 Kg/day which will be segregated in biodegradable waste and recyclable waste. Recyclable waste (paper, plastic, glass, etc) will be sold off to authorized vendors and Biodegradable waste (canteen waste, food waste, green area waste, etc) to common waste management site of TSSEZL for disposal. Solid Waste Management Rules, 2016 shall be followed.

S. No	Name of Waste	Source of Generation	Category No. (As per HW Rules 2016)	Quantity	Mode of Treatment & Disposal Method
1	Discarded Containers/Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.1	150 MTPA	Collection, Storage, Decontamination or sale to authorised decontamination facility
2	Used/Spent Oil	Filtration	Sch-I/5.1	60 KL/Annum	Collection, Storage, Transportation & Disposal by selling to registered Refiners
3	ETP Sludge	In-house ETP	Sch-I/35.3	Approx. 300 MTPA	Collection, Storage, Transportation and disposal to authorized CHWTSDF

4	Metal Scrap	-	Non-Hazardous	60 MTPA	To approved recycler
5	Fly ash	Boiler	Non-Hazardous	41580 MTPA	Sell to cement Industry
6	Spent Ion Exchange resin	DM plant	Sch-I/35.1	5000 lit in 5 years	Collection, Storage, Transportation and disposal to authorized CHWTSDF
7	NOx abator used Catalyst	NOx abator	Sch-I/18.1	10 MT/five year	Collection, Storage, Transportation and disposal to authorized CHWTSDF
8	Catalyst (Platinum, Rhodium Catalyst)	Process	Sch-I/18.1	160 Kg/Year	Regeneration
<p>Note: PP also reported that the spent catalyst in the form of metallic oxides will be stored in MS drums with sealed lid. Same will be sold to CPCB/MoEF&amp;CC authorized/registered recycler for its recycling.</p>					

**13.** It has been informed that the pipeline of the project falls in the CRZ area. Therefore, CRZ clearance is also required for pipelines. PP submitted the EC application for Chemical Fertilizer in Industry 3 Sector and CRZ application for pipeline before the CRZ Sector. Project Proponent informed the EAC that the CRZ proposal for pipeline is under consideration with CRZ Sector for CRZ clearance, vide proposal no. IA/OR/CRZ/204641/2021. The matter has been examined in the Ministry based on the comments of CRZ Sector.

**14.** The proposal of EC was initially placed before the EAC in its meeting held during March 11-12, 2021 wherein the EAC deferred the proposal. Based on the information submitted by PP on 31.03.2021, the proposal was again re-appraised by the Expert Appraisal Committee (Industry-3 Sector), in its 9<sup>th</sup> meeting held during 12-13 April, 2021. The project proponent and their consultant M/s. EQMS India Pvt. Ltd, made a detailed presentation through Video Conferencing (VC) and have presented the EIA/EMP report.

**15.** The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 that the data and information given in the application and enclosures are true to the best of their knowledge and belief and no information has been suppressed in the EIA/EMP report. 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.



The Committee noted that the EIA/EMP report reflects the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated issue based on EC and CRZ clearance and suggested Ministry to take decision on administrative procedure in which both EC and CRZ clearance required. Action plan and budget allocation for green belt development was deliberated and revised commitment submitted by PP for green belt development and budget allocation for the same was accepted by the committee. Detailed action plan for mitigation of particulate emission (i.e. PM10, PM2.5) was also deliberated by the committee and found to be satisfactory. Schedule-I conservation plan found satisfactory. The committee deliberated mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee also suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following the safety norms and best practices. Additional information submitted by PP was deliberated and found to be addressing the concerns of the EAC.

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 Experts Members of the EAC also found the proposal in order and recommended for the grant of environmental clearance.

**16.** The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its 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.

**17.** Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate Change hereby accords **Environmental clearance to the project for setting up of Technical Ammonium Nitrate Manufacturing Plant by M/s Smartchem Technologies Ltd. (STL), located at DLCT-1, Domestic Tariff Area, Gopalpur Industrial Park, Chamakhandi, Tehsil- Chatrapur, District- Ganjam, Odhisha**, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

**A. Specific Conditions:**

- (i) 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.
- (ii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For 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.

- (iii) 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.
- (iv) 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.
- (v) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (vi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (vii) Safety and risk assessment studies shall be conducted and action plan and mitigation measures shall be properly implemented.
- (viii) 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.
- (ix) Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.
- (x) Total fresh water requirement shall not exceed 7000 KLD which will be met from TSSEZL for industrial and domestic use. Necessary permission in this regard shall be obtained from the concerned regulatory authority, and renewed from time to time.
- (xi) 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.
- (xii) The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.



- (xiii) The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year. In addition to the above mentioned greenbelt development, PP shall also plant 10000 plant in around the study area.
- (xiv) The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.
- (xv) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**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 submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective 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 31<sup>st</sup> 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 Regional Offices 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.

**18.** 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.

**19.** Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.



20. Any appeal against this environmental clearance 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.

21. 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.

22. This issues with the approval of the competent authority.

P  
25/05/2021  
(Dr. R. B. Lal)

Scientist 'E'/Additional Director

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(डा. आर. बी. लाल)

(Dr. R. B. LAL)

वैज्ञानिक 'ई'/Scientist 'E'

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

Min. of Environment, Forest and Climate Change

भारत सरकार, नई दिल्ली

Ministry of India, New Delhi

**Copy to: -**

1. The Deputy Director General of Forests (C), Integrated Regional Office, Bhubaneswar, A/3, Chandrasekharpur, Bhubaneswar-751023
2. The Secretary, Department of Forest & Environment Department, Govt. of Odisha, Kharavel Bhavan, Bhubaneswar, Odisha,
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 32
4. The Member Secretary, State Pollution Control Board, Odisha, Head Office), Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII, Bhubaneswar – 751012, Odisha



5. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
6. The District Collector, Ganjam, Odhisha
7. Member Secretary (CRZ Sector), IA Division, MoEFCC, New Delhi-110003
8. Guard File/Monitoring File/Website/Record File/Parivesh portal

  
**(Dr. R. B. Lal)**  
**Scientist 'E'/Additional Director**