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 सत्यमेव जयते	State Level Environment Impact Assessment Authority (SEIAA)
	Andhra Pradesh Ministry of Environment, Forests & Climate Change Government of India D.No.33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamavari Street, Kasturibaipet, Vijayawada-520010

REGD.POST WITH ACK.DUE

Order No. SEIAA/AP/WG/IND/03/ 2018/538

Dt: 27.11.2018


Sub: SEIAA, A.P. – M/s.Andhra Sugars Limited Expansion of Synthetic Organic Chemicals manufacturing Unit at Sy. No. 541, 545 and 539, Venkatarayapuram Industrial Area Town Ship, Tanuku Mandal, West Godavari District Andhra Pradesh -Environmental Clearance - Issued - Reg.

- I. This has reference to your EC application submitted through online on 24.09.2018 (Proposal No.SIA/AP/IND2/29179/2018), seeking Environmental Clearance for manufacturing of Formaldehyde & Resins in the name of **M/s. Andhra Sugars Limited Expansion of Synthetic Organic Chemicals manufacturing Unit at Sy. No. 541, 545 and 539, Venkatarayapuram Industrial Area Town Ship, Tanuku Mandal, West Godavari District Andhra Pradesh**. The total cost of the project is Rs. 102 Crores and the production capacity of the project is as following:

List of Existing Products and proposed products:

S.No.	Name of Product	Capacity (Kg/day)			
		Permitted as for CFO	Phase I*	Phase II	Total after Phase II
1	Hydroxy Terminated Poly Butadiene (HTPB)	540	1130	570	1700
2	UH□25 (UDMH□75% + HH 25%)	666	2170	580	2750
3	Monomethyl hydrazine (MMH)	33	145	55	200
4	Isrosene	--	4000	4000	8000
	Total	1239	7445	5205	12650

The proposal has been examined and processed in accordance with EIA Notification, 2006 and its amendments thereof. The State Level Expert Appraisal Committee (SEAC) examined



the application in its meetings held on **13.10.2018**. The representative of project proponent and their consultant M/s. Team Labs and Consultants have attended the meeting and presented their proposal along with final EIA report. The Committee noted that M/s. The Andhra Sugars Limited., was established in 1990 and involved in manufacturing of synthetic organic chemicals. It is propose to expand manufacturing capacity of Hydroxy Terminated Poly Butadiene (HTPB), UH-25 (UDMH-75% + HH 25%), Monomethyl hydrazine (MMH) and inclusion of Isrosene. These chemicals are manufactured for exclusive use as propellant for satellite launch vehicles like PSLV and GSLV by Indian Space Research Organization (ISRO). The existing industry manufacturing the synthetic organic chemicals (3 products) – 1239 Kg and proposes to increase the production capacity from 1239 kg/day to 12650 kg/day with 4 products in Phase I& II. This industry is located in the notified industrial area i.e., Venkatarayapuram Industrial Area Township, West Godavari District. The proposed project falls under Item 5(f) of the schedule of the EIA Notification 2006- Synthetic organic chemicals , bulk drug and intermediates, dyes & dye intermediates etc.) and the exemption of public consultation, as provided for under Para 7(i) III. Stage (3)(i)(b) of EIA Notification, 2006. The Standard Terms of Reference (TOR) was issued on 14.05.2018 with with exemption of Public hearing with additional TOR : Condition-wise compliance on Consent For Operation (CFO) of the existing Plant. The industry prepared the final EIA report with CFO compliance report was submitted the proposals on 24.09.2018. *The Committee recommended for issue of Environmental Clearance for expansion for the manufacture of synthetic organic chemicals – 12650 kg/day i.e., Hydroxy Terminated Poly Butadiene (HTPB) – 1700 kg/day , UH-25 (UDMH-75% + HH 25%) – 2750 kg/day, Monomethyl hydrazine (MMH) – 200 kg/day and Isrosene – 8000 kg/day, duly stipulating the condition that the industry shall manufacture the said products under the supervision of ISRO to comply with the safety norms and other conditions.* The State Level Environment Impact Assessment Authority (SEIAA), in its meeting held on 01.11.2018 examined the proposal and the recommendations of SEAC and decided to issue Environmental Clearance to the project as recommended by the earlier SEAC. The SEIAA, A.P hereby **accords prior Environmental Clearance to the project** as mentioned at Para no. I under the provisions of the EIA Notification 2006 and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to implementation of the following specific and general conditions:

A. Special Conditions:

- i. *The industry shall manufacture the said products under the supervision of ISRO to comply with the safety norms and other conditions.*
- ii. The project proponent shall adopt the Zero Liquid Discharge (ZLD) system for the treatment and recycling the treated water, with other conditions.
- iii. The project proponent shall allocated sufficient funds for implementation of CSR activities:
- iv. The industry shall segregate effluents into different streams i.e. High COD and Low TDS, Low COD and High TDS, Low COD and Low TDS.

- v. The industry shall develop waste factors for different streams of effluents and solid waste.
- vi. The industry shall provide two stage scrubbing system to control process emissions.
- vii. The industry shall provide solvent recovery system.
- viii. The industry shall provide hazardous waste container (drums) cleaning/washing system.
- ix. The industry shall provide mass flow meter to measure quantity of stream consumed for MEE system.
- x. The industry shall provide magnetic tamper proof flow meters to measure quantity of different streams of effluents generated and routed through the treatment systems.
- xi. The industry shall provide stream stripping system to handle volatile matter in the effluents.
- xii. The industry shall send hazardous waste to the authorized cement industries/ TSDF/ authorized recyclers by properly maintaining the system.

B Specific Conditions:

a) Air pollution:

- I. The emissions from the existing 1 x 12 TPH coal / natural / bio gas fired boiler shall be routed through by a stack of height 35 m followed by bag filters, 1 x 12 TPH natural / bio gas / Bagasse fired boiler shall be routed through by a stack of height 35 m and emissions from 1 x 2 TPH oil fired boiler shall be routed through a stack of height 12 m followed by scrubber. The emissions from proposed 1 x 12 TPH coal / natural / bio gas fired boiler shall be routed through by a stack of height 35 m followed by bag filters.

The concentration of particulates in the emission shall not exceed 115 mg/Nm^3 . Sampling Port with removable dummy of not less than 15cm diameter in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc., shall be provided to monitor stack emissions. Adequate stack heights shall be provided for existing D.G. Sets of capacity 2 x 1000 KVA, 1 x 860 KVA, 1 x 380 KVA and for proposed 1 x 1000 KVA as per CPCB norms.

- II. The process emissions containing HCl and NH₃ shall be routed through two stages scrubber system. Scrubbed liquid shall be treated and reused or subjected to MEE.
- III. Necessary measures shall be taken to control odour as far as possible. Sub coolers for brine circulation shall be installed to reduce solvent evaporation losses into the atmosphere. All the solvent storage tanks shall be connected to vent condensers with chilled water circulation to minimize the solvent loss. The proponent shall

install VOC meter in the plant to monitor continuously the VOC emissions with recording facility.

- IV. The solvents shall be recovered by installing fractional distillation columns. The recovered solvents shall be reused in the process or sold to recyclers authorized by APPCB. The volatile vapours generated during process shall be routed through condensers and the condensate shall be reused in the plant.
- V. The area of the greenbelt shall not be less than 33% of the total area of the site. Greenbelt with tall growing trees shall be developed along the boundary of the site.
- VI. Raw materials shall be transported in covered trucks. Raw materials shall be stored under sheds. All the belt conveyors shall be covered with G.I. sheets. Appropriate dust suppression system shall be provided all around the stockpiles and conveyor system. All the roads in the plant area shall be asphalted / concreted and water shall be sprinkled to suppress the dust.
- VII. Fugitive emissions from storage tanks will be avoided by providing air condensers.
- VIII Ambient air quality including ambient noise levels must not exceed the standards stipulated under Notification dt. 16.11.2009 issued by the MOEF&CC,GOI. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with APPCB. Data on ambient air quality should be regularly submitted to the Ministry including its Regional Office located at Chennai and the State Pollution Control Board/ Central Pollution Control Board once in six months.

b) Water Pollution after expansion (phase-II)

- i The total water requirement shall not exceed 1077.3 KLD (Fresh water is 737.3 KLD & Recycled water is 340.0 KLD). Quantity of water used for process is 172.8 KLD, Boiler feed is 50.0 KLD, Cooling tower is 490.0 KLD, RO / D.M. Plant is 12.5 KLD, Domestic is 12.0 KLD.
- ii The total waste water generated is 356.1 KLD. Out of that, 183.6 KLD is from process, 12.5 KLD from RO / D.M. Plant; 140.0 KLD from Cooling tower; 10.0 KLD Boiler blow down; 10.0 KLD from Domestic.
- iii Zero discharge concepts shall be adopted. High COD & Low TDS shall be sent to incinerator, Low COD & Low TDS shall be sent to conventional ETP and the Low COD & High TDS effluents are routed through Stripper with scrubber followed by MEE and rejects of MEE shall be sent to ATFD. The condensate of the MEE shall be sent to RO. The permeate from the RO plant shall be re-used in the plant and rejects to MEE. The domestic waste water shall be disposed into the septic tank followed by soak pit.

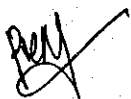
- iv The proponent shall provide separate storm water drains and harvest the rainwater from the rooftops to recharge the ground water.

c) Solid Waste / Hazardous Waste after expansion (phase-II)

- i. Hazardous waste generated from the industry such as organic residue, salts, spent solvents waste oils, used oils etc., shall be disposed as per the Hazardous and other Wastes (Management and Tran boundary movement) Rules, 2016 and its amendments thereof.
- ii. The Process residue from HTPB-1.5 TPD is to be disposed to TSDF; Batches failure in HTPB - 2 TPA is to be disposed to TSDF; Process residue from UH-25-1.35 TPD after Destruction with H₂O₂ /O₃ & UV to MEE; Process residue from Isrosene-170 kg/day to Cement Industry; Catalyst from ISROSENE-20 kg/day Sold to authorized recyclers; Boiler Ash-50 TPD Sold to Brick manufactures; Softner / DM Plant Resins-2 TPA to TSDF; Evaporation Salts-1.5 TPD to TSDF; ETP Sludge - 2 TPD to TSDF; Used / Discarded RO Membranes-0.5 TPA & Used Filters -15 No's/Year to TSDF for Incineration; Insulation and Glass wool Waste-0.5 TPM to TSDF; Discarded PPE-0.5 TPA to TSDF for Incineration; Plastic carboys and Plastic Bags-1100 No's/ M After detoxification sold to recyclers; Glass Bottles-250 No's/ M to Dispose off to outside agencies after detoxification; Waste oil – 7.0 KLPA is to be disposed to authorized recyclers; Used Lead acid batteries – 15 nos/year Authorized recyclers; Paper, cotton waste & Packing materials i.e. wood, carton , ropes-5 TPA - Sale to outside agencies/ recyclers; Metal scrap-10 TPA-Sale to outside agencies/ recyclers; E- Waste-0.2 TPA to Authorized recyclers; Canteen Waste-5 Kg/day to Composted and used as manure; Plastic Waste-0.5 TPA to Authorized recyclers.

B. General Conditions:

- i. **This order is valid for a period of 7 years.**
- ii. "Consent for Establishment" shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act before the start of any activity / construction work at site.
- iii. Provision shall be made for the housing of the construction labour within the site with all necessary infrastructure and facilities such as safe drinking water, fuel for cooking, mobile toilets, mobile STP, medical health care, crèche etc., The housing may be in the form of temporary structures to be removed after the completion of the project. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.



- iv. No change in the process technology and scope of working should be made without prior approval of the SEIAA, A.P. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, AP/ MOEF&CC, GoI, New Delhi, as applicable.
- v. The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment & Forests, its Regional Office, Chennai, SEIAA, A.P., Zonal Office of Central Pollution Control Board, Bangalore, District Collector and A.P. Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions including results of monitored data on their websites and shall update the same periodically.
- vi. Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM, SPM, PM₁₀, PM_{2.5}, SO₂, NO_x, Ammonia, VOCs monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- vii. Data on ambient air quality (RPM, SPM, PM₁₀, PM_{2.5}, SO₂, NO_x, Ammonia, VOCs) should be regularly submitted to the Ministry including its Regional Office located at Bangalore and the State Pollution Control Board/ Central Pollution Control Board once in six months.
- viii. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- ix. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- x. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- xi. The funds earmarked for environmental protection measures (**Capital cost is Rs.720.3 Lakhs & Recurring cost is Rs.400.7 Lakhs/annum**) should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the SEIAA, Ministry and its Regional Office located at Bangalore.

- xii. At least 2% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared in accordance to the MoEF&CC's office Memorandum No.F.No.22-65/2017- IA.III, dated.01.05.2018 and submit to the SEIAA, A.P and Ministry's Regional Office, Chennai.
- xiii. The Regional Office of MOEF&CC located at Chennai / The SEIAA, Andhra Pradesh through the Regional Offices of Andhra Pradesh Pollution Control Board, 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.
- xiv. The project proponent shall submit the copies of the environmental clearance 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.
- xv. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and SEIAA, A.P. This order shall be displayed in the website of the project proponent.
- xvi. The SEIAA or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- xvii 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.
- xviii The company shall undertake eco-development measures including community welfare measures in the project area.
- xix. The proponent shall obtain all other mandatory clearances from respective departments.
- xx. Concealing the factual data or 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.

- xxi. The SEIAA may revoke or suspend the order, if implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- xxii 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 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Sd/-
MEMBER SECRETARY,
SEIAA, A.P.

Sd/-
MEMBER,
SEIAA, A.P.

Sd/-
CHAIRMAN,
SEIAA, A.P.

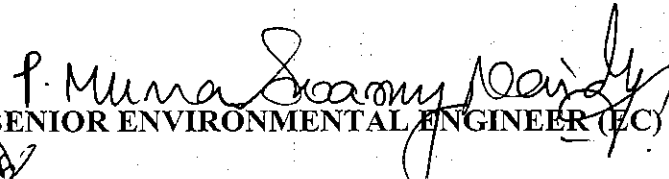
To

Sri M.Palachandra, Company Secretary,
The Andhra Sugars Limited,
Venkatarayapuram Industrial Area Township,
Tanuku Mandal, A.P.,
West Godavari District – 534215,
Ph.+91 9848356745

Copy to:

1. The Chairman, SEAC, A.P. for kind information.
2. The Member Secretary, APPCB for kind information.
3. The EE, RO: Eluru, APPCB for information.
4. The Regional Officer, MOEF&CC, GOI, Chennai for kind information.
5. The Secretary, MOEF&CC, GOI New Delhi for kind information.
6. Monitoring cell, MoEF&CC, GOI, New Delhi for kind information.
7. The District Collector, West Godavari District, Andhra Pradesh for kind information.

//T.C.F.B.O//


P. Muna Sanyal
SENIOR ENVIRONMENTAL ENGINEER (EC)