

Compliance to the Environmental Clearance for 730 MTPM Pentaerythritol and 480 MTPM Sodium formate issued by SEIAA on 24.04.2018 –Apr-2020 to Sep-2020

Reference Letter No. SEIAA/TN/F.6495/5(f)/EC-60/2018 dated 24.04.2018

Specific Conditions:

Sl.No.	Condition	Compliance
1	It is Mandatory for the Project Proponent to furnish to the SEIAA, half yearly Compliance report in hard and soft copies on 1 st June and 1 st December of each calendar year in respect of the conditions stipulated in the prior Environmental Clearance issued.	We here by confirm that, we have submitted half yearly compliance with respect of the conditions stipulated in the Environmental Clearance in hard and soft copy to the SEIAA on 23 rd October 2020.
2	Consent for Establishment shall be obtained from Tamil Nadu pollution Control Board and a copy of the same shall be furnished to the SEIAA, Tamilnadu before start of project construction activity at the site.	Capacity expansion proposed was only through debottlenecking exercise and hence no new facilities were to be established. With reference to the CPCB circular on 2 nd Feb 2017 regarding “mechanism of granting consent” point No.4 “All projects requiring Environmental clearance either from the state level EIA Authority or MoEFCC may be exempted from obtaining the consent to Establish” . since the Industry is already having the required Pollution control devices, <i>We obtained Consent to operate for Expansion vide consent order No. 1807112849466 dated 17.07.2018.</i> from TNPCB.
3	The implementation of Environmental management plan in regard to the treatment and disposal of sewage & Effluent, Solid waste management, Hazardous – Waste Management, and CSR activities should be carried out, as proposed and committed. Regular monitoring should be carried out during operation phases.	We confirm that, the implementation of Environmental management plan regarding the treatment and disposal of sewage & Effluent, Solid waste management, Hazardous Waste Management. T The CSR activities were carried out and completed as per the commitment of not less than 33.60 Lakhs per annum (<i>Details are given in annexure</i>). All sewage effluents are treated in Sewage Treatment Plant within our unit. We have valid Hazardous waste authorization and it is sent to authorized agency. Annexure 7- Copy of Hazardous Waste Authorization Annexure 12- CSR Activities 19-20.
4.	The residue collected from the evaporator shall be documented by maintaining proper register and it should be made available at the time of inspection.	We here by confirm, that the residue collected from the evaporator is documented and monitored with register.
5.	Adequate dust extraction system such as ducting with dust extracting arrangement wherever required shall be established to achieve occupational – health standards and ambient air quality standards.	Adequate dust extraction system such as ducting with dust extracting arrangement is already available in TECH PENTAERYTHRITOL, Mono PENTAERYTHRITOL , DI PENTAERYTHRITOL & Sodium Formate driers. Pulmonary Function Test is being carried out regularly for the employees and health standards are being monitored. The unit is having continuous ambient air quality monitoring station for

		<p>monitoring the ambient air quality standards and the same is connected to CARE AIR center.</p> <p>Photo attached as Annexure – 15.</p>
6.	The proponent shall carryout best housekeeping practices as spillage management for handling and maintenance of raw materials and products inside the unit premises.	We carry best housekeeping practice and follow Spill control management procedure .
7.	Nature of chemicals Handled, the Do and Don'ts shall be displayed at all vital locations as laided down in MSDS.	Nature of chemicals Handled, the Do and Don'ts has been displayed at all vital locations as laid down in MSDS. Photo attached as Annexure-16.
8.	The proponent shall ensure that the quantity of Hazardous Waste handed over to the TSDF shall match with the quantity generated.	We ensure that the generated Hazardous Waste storage and disposal to the TSDF is as per the Hazardous waste authorization condition.
9.	The proponent shall provide a separate closed area earmarked for storing solid waste including Hazardous Waste as proposed.	We state that, a dedicated closed shed has been established for storing solid waste and Hazardous Waste. Photo attached as Annexure 17.
10	The proponent shall dispose Hazardous Waste generated as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Spent oil from D.G sets should be stored in HDPE drums in an isolated covered facility and disposed off through TNPCB registered recyclers	We here by confirm that, all Hazardous Wastes has been disposed as per the Hazardous and other Wastes (Management and transboundary Movements) Rules. 2016 to M/s TNWMA & M/s GGEPIL. Spent oil from DG sets is being stored in HDPE drums in an isolated covered facility and disposed through TNPCB authorized recyclers (Lakshmi Oils, Arakonam).
11	The Plastic wastes shall be segregated and disposed as per the provisions of Plastic Waste (Management & Handling) Rules 2016	We state that, generated plastic wastes are being segregated and disposed as per the provisions of Plastic Waste (management & handling) rules 2016 to M/s Ultratech. Ariyalur.
12.	The e - waste generated should be collected and disposed to a nearby authorized e-waste center as per e waste (Management & Handling), Rules 2016 as amended.	We state that, generated e. waste is being collected and disposed to authorized e-waste center (M/s Victory Recovery & Recycle Technologies India Pvt Limited) as per e waste (Management & Handling), Rules 2016 as amended.
13.	The Municipal solid waste generated shall be collected, segregated and disposed as per Solid Waste Management Rules,2016.	We state that, generated municipal solid waste is being collected, segregated and disposed as per Solid Waste Management Rules,2016.
14.	The industry shall conduct air sampling at least once in six months for the general core parameters (PM10, PM2.5,SOx, NOX) through TNPCB/NABL Accredited Laboratory and maintain records of the same and it should be made available at the time of inspection.	We confirm that, we are conducting AAQ survey (PM10, PM2.5, SOx, NOX) by TNPCB Lab /NABL accredited Laboratory once in six months. The results are with in the TNPCB permissible limit. Annexures 3. TNPCB Half Yearly Analysis & AAQ analysis by External NABL approved laboratory

15.	Regular monitoring on the air quality, water quality and noise on the selected locations in and around the project site as mentioned in the EMP report for creating base line data shall be continued and records shall be maintained.	We confirm that, we are carrying out Periodical air quality, water quality and noise monitoring on the selected locations of the factory premises. Annexures 3. TNPCB Half Yearly Analysis
16.	A separate environment and safety management cell with qualified staff shall be set up before establishment of the facility and shall be retained throughout the lifetime of the industry, for implementation of the stipulated environmental safeguards.	A separate environment and safety management cell with Qualified Safety Officer, chemists and Managers has been established for the implementation of the stipulated environment safeguards. Dedicated team is continuously available.
17.	The Green belt area already developed within the project area shall be properly maintained.	We here by confirm that we have developed and maintaining a Green belt area of 4.5 hectare (More than 33%) within the premises.
18.	The industry shall promote tree plantation to neutralize their carbon foot print. The industry shall engage regularly in afforestation programme.	We confirm that we had planted and maintaining 13500 trees inside the factory premises. The industry is engaging regularly in afforestation programme within and beyond the fence as per the SIPCOT requirements. Greeneries Photo attached as Annexure No.9.
19.	The proponent shall ensure effective risk management strategy regarding confined space management to avoid risk while handling raw materials, products in the process area and storage.	We state that periodic Risk assessment is being carried out by competent person regarding Confined space management. The copy of the Risk assessment is enclosed as Annexure No. 18.
20.	The industry shall conduct air sampling at least twice in a week (104 times in a year), as stipulated under EP Act 1986.	We confirm that air sampling survey is being carried out twice in a week (104 times in a year), as stipulated under EP Act 1986.
21.	Risk cum disaster management plan should be in place in the industry premises at all time.	We confirm that the Risk cum disaster management plan is available in the industry premises at all time in the Emergency control center. Copy attached as Annexure 19.
22.	Water conservation scheme including rain water harvesting measures to augment ground water resources shall be implemented so as to collect and reuse the entire rainwater harvested as a supplement to fresh water.	We state that water conservation scheme including rain water harvesting including roof water is being implemented in the factory premises. Photo attached as Annexure 11.
23.	The natural drainage pattern in the project area shall be maintained and storm water drain along the boundary and appropriate -places shall be provided considering - the Catchment area and maximum intensity of rainfall to collect runoff water/rain water for proper disposal to avoid flooding around the premises.	We confirm that adequate and suitable storm water drains were provided in the factory premises considering -the Catchment area and maximum intensity of rainfall and the runoff water/rain water collected for proper disposal to avoid flooding around the premises.
24.	The Environmental Clearance is issued without prejudice to any order that may be passed by the Hon'ble NGT/	We state that we abide by the said conditions.

	Hon'ble High Court of Madras.	
25.	All the assurances given in EIA and EMP shall be adhered to strictly.	We state that we abide by the said conditions.
26.	Detail study shall be carried out by engaging accredited agencies / reputed institutions for Risk management and detailed Disaster management plan prepared for compliance.	We confirm that periodic Risk and Disaster management study is being carried out by accredited agencies / reputed institutions and its recommendations will be implemented.
27.	Sufficient funds should be provided for Disaster management.	We assure that the dedicated budget will be provided for Disaster management plan as well as for the Public Liability Insurance obtained from Reliance Insurance company. PLI copy attached as Annexure 20 .
28.	The Project Proponent shall provide disinfection by UV system for the sewage treatment plant for treating the sewage before applying on land for gardening.	We state that UV disinfection system has been provided for our existing sewage treatment plant. Photo attached as Annexure 21 .
29.	The project proponent must provide closed loop silo for ash handling and the same shall be installed before 30.05.2018 as committed-and submit the proof to SEIAA-TN,	We confirm that Closed loop silo for ash handling has been installed and it is operational. Photo attached as Annexure 22 .
30.	The project proponent shall provide sufficient ventilation (air circulation) in the hazardous waste storage yard where the hazardous waste like spent carbon, Chemical sludge, used or spent oil are being kept.	We confirm that sufficient ventilation (air circulation – 1 no. of vent) has been provided in the hazardous waste storage yard where the hazardous waste like spent carbon, Chemical sludge, used or spent oil are being kept. Photo attached as Annexure 23 .
31.	The industry should completely revamp fly ash collection from the source, conveyance, storage and disposal in a more scientific manner and to reduce the fugitive emissions in fly ash handling. The final disposal of the fly ash will be as per MoEF & CC Notification S.O. 254 (E) dated: 25th January,2016.	The system has been revamped.We state that the generated fly ash is collected in a closed system (SILO) instead of manual collection. The fly ash is disposed as per MoEF & CC Notification S.O. 254 (E) dated: 25th January,2016
32.	The Project Proponent shall carry out-safety audit in the different operating zones of the plant at least once in a year and the same shall be considered as base for reviewing the unsafe conditions during the plant safety meeting.	We confirm that the safety audit is being conducted once in a year by competent person. Review of unsafe conditions during the plant safety meeting is based on the findings.
33.	The Project Proponent shall prepare a code of practice for safe operation for educating the safety standards to the work force deployed in the plant through appropriate training by the concerned experts.	We confirm that we are having safety manual/SOP for every process and training being imparted to all the employees for safe handling of chemicals as well as for safe operations. Sample of SOP is attached as Annexure 24 .
34.	As the plant operation involves the sensitive processing, the medical officer and the supporting staff involved in the health centre activities shall be trained in	We state that our factory medical officer and the supporting staff (3 Nos.) is being involved in the occupational health center activities and has

	occupational health surveillance (OHS) aspects through the outsourced training from the experts available in the field of OHS for ensuring the health standard of persons employed.	been trained in occupational health surveillance (OHS) aspects as per Tamil Nadu Factories Rules 1950. Doctor certificate is attached as Annexure –25 .
35.	The Activity of the industry should no way pollute water bodies such as Uppanar River, Perumal Lake & Bay of Bengal.	We confirm that in no way the activity of the industry will pollute the nearby water bodies. All treated water is being reused in our process and gardening.
36.	The Activity of the industry should not impact on agricultural, irrigation system and mangroves surrounding the area.	We confirm that we have provided and maintaining the air and water pollution control/prevention equipment's as per the condition of the TNPCB consent order. Our manufacturing activities directly/indirectly do not affect nearby agricultural, irrigation system and mangroves surrounding the area.
37.	The EMP cost of Rs.576 lakhs and operation and maintenance cost Rs. 23.6 lakhs shall be deposited in a nationalized bank by opening a separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SEIAA annually.	We confirm that we maintain a separate bank account (A/c no.: 37888950027, State Bank of India, O.T, Cuddalore) for expenses related to implementation of Environment Management Plan. The approved budget spent for Environmental activities along with the expense details will be submitted to TNPCB with a copy to SEIAA.
38.	There should be no threat to Bio diversity due to the operation of the industry.	We confirm that our manufacturing activities has no threat to Bio diversity.
39.	The Flora & Fauna present in and around the project site should not get affected due to the activity as reported.	We confirm that the Flora & Fauna present in and around the factory premises will not get affected due to our manufacturing operation.
40.	The Project Proponent has to provide rain water harvesting collection tank to the capacity of 200 cu.m in order to recover and reuse the rain water during normal rains.	We state that we had provided rain water harvesting tank of 200 cu.m capacity.
41.	The operation of the activity should not Impact on the soil, micro flora & Fauna present in and around the project site.	Butterfly garden and Peacock park is maintained. We state that the operation of the activity has no Impact on the soil, micro flora & Fauna present in and around the Factory premises.
42.	The project proponent shall carry out' risk assessment process for all the operations involved in the plant and a suitable, risk; management plan showing the contours of sensitive zones should be prepared.	We confirm that we had carried out a detailed Qualitative Risk assessment showing the contours of sensitive zones by competent person for all the operations involved in the plant. The recommended points have been implemented.

43.	<p>The industry shall develop green belt in the open areas by planting the following species in future:</p> <ol style="list-style-type: none"> 1. Calophyllum inophyllum-Pungan 2. Syzygium cumini- Naval 3. Thespesia populnea- Poovarasu 4. Terminalia arjuna- Neermarudu 5. Ficus bengalensis — Alamaram 6. Ficus retusa- Atthi 7. Ficus bengalensis- Arasamaram 8. Alstonia scholaris- Palai 9. Mimosa pudica - Mahilam 10. Madhuca longifolia - Ihupai 	We have 11899 trees in 4.5 Hectares of the factory premises of all native species.
44.	The project proponent shall take up better housekeeping measures including scraps disposal and up keeping the machineries, pipes etc.	Asian Paints is adhering with better housekeeping measures: Scrap disposal is done periodically. Machinery upkeep is done periodically.
45.	The proponent should continuously monitor the VOC and ensure that VOC levels are within permissible limits.	We confirm that we had already installed online VOC monitoring system in our plant and the same is connected to CARE AIR CENTRE, TNPCB, GUINDY. We maintain VOC levels within the permissible limit.
46.	<p>Air pollution control — there are four sources of air emissions within the industry process-Tech PE drier, Sodium formate drier, Mono drier and Di PE drier.</p> <ol style="list-style-type: none"> 1. From the Tech PE drier, particulates of Pentaerythritol will be emanating which will be controlled in a bag filter and finally emitted to the environment through a stack. There will be increase in the pollutant load from 1.33 kgs/ day to 1.72 kgs/day and hence additional bag filter capacity should be created. 2. From the Sodium formate drier, suspended particulate matter will be emitted which is sent to wet scrubber and then to the stack. The existing scrubber should be replaced with a new one. 3. From both Mono PE drier and Di PE drier, SPM will be emitted which is sent to wet scrubber and then to stacks. There is an increase in the amount of pollutant, but the proponent should increase the efficiency of the scrubber to absorb the additional pollutant load. 	<p>We ensure that the air pollution control system has been established in the following locations.</p> <ol style="list-style-type: none"> 1. The existing TECH PE Drier bag filter capacity has been increased from 74.30 m² to 75.46 m² thereby capable to handle pollution load to 1.72 Kgs / day. 2. The existing low capacity wet scrubber has been replaced with higher capacity wet Scrubber there by improving the scrubbing efficiency as recommended. 3. The existing wet scrubber scrubbing liquid flow rate has been increased as mentioned below by which the scrubbing efficiency has got increased by which the emission levels will get reduced. <ol style="list-style-type: none"> 1. Mono PE Scrubber – 6 lpm to 6.5 lpm 2. Di PE Scrubber – 7.5 lpm to 8 lpm.
47.	<p>The project proponent -has to provide/ install the following -before 30.04.2018 as committed and furnish proof of the same to SETAA-TN :</p> <ol style="list-style-type: none"> 1. The Sewage sludge bed capacity should be increased from 5.27 m³ to 10.5 m³ . 2. The sludge drying bed 2. Nos should be provided in 	<ol style="list-style-type: none"> 1. We state that the existing sewage sludge bed capacity has been increased from 5.27 m³ to 10.5 m³ as recommended. 2. We state that the existing 2 nos. of open type sludge bed has been provided as

	<p>additional to the existing Sludge drying bed for managing sludge .</p> <p>3. The agreement with hazardous waste management and disposal facilities shall be made including the quantum of hazardous waste and the life period.</p>	<p>closed type solar drying bed by covering with UV stabilized sheet there by the drying capacity/efficiency has got increased, which meets the said requirement</p> <p>3. The agreement has been amended for the quantum of Hazardous waste with life period – copy enclosed as Annexure 27.</p>
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General Conditions

1	This Environment clearance shall not be cited to relax any other rules applicable to this project	Agreed upon.
2.	The project proponent 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 Environmental clearance informing that the project has been accorded Environmental clearance and a copy of the clearance letter is available with TNPCCB and also at the website of the SEIAA. TN at Http://www.seiaa.tn.gov.in	Information on accordance of the Environment clearance to the project has been published in two local newspapers.
3	A copy of the Environmental clearance shall be sent by the project proponent to concern local body and local NGO, if any from whom suggestions/ representatives if any were received while processing the proposal.	A copy of the Environment clearance has been submitted to local body and local NGO. A copy of the same is enclosed as annexure.
4	The Environmental clearance shall also be put on the website of the company	The Environment clearance has been published in Company web site.
5	No expansion or modernization in the project shall be carried out without prior approval of the SEIAA – TN. In case of any deviations or alterations in the project proposal from those submitted to this authority for clearance, a fresh reference shall be made to the SEIAA – TN to assess the adequacy of conditions imposed and to	Agreed upon.

	add additional environmental protection measures required. if any	
6	All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with	All Environmental protection measures and safe guards are complied with.
7	The implementation of the project vis a vis environmental action plans shall be monitored by the Regional office of MoEf & CC at Chennai TNPCB and CPCB six monthly compliance status report shall be submitted to monitoring agencies regularly	Half yearly compliance report is being submitted as per the time lines.
8	Data on ambient air, stack and fugitive emissions shall be regularly submitted online to the Regional office of MoEF & CC, GOI at Chennai TNPCB and central Pollution control board as well as hard copy once in six months and display data on RSPM, SO2 and Nox outside the premises at the appropriate place for the general Public	The data's on ambient air, stack and fugitive emissions are being submitted as per the time lines.
9	Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per the factories act	Occupational health surveillance of the workers is being carried out on regular basis and records were maintained as per the factories act.
10	Proper housekeeping and cleanliness must be maintained within and outside plant	Housekeeping is being done inside and outside the plant.
11	Occupational health surveillance programme shall be undertaken as regular exercise for all the employees, especially for those engaged in handling hazardous substances. The first aid facilities in the occupational health center shall be strengthened and the medical records of each employee should be maintained separately.	Occupational health surveillance programme is being undertaken for all employees specifically for those engaged in handling hazardous substances. The occupational health center is equipped with full-fledged first aid facilities and the medical records of the employees are being maintained.
12	The overall noise levels in and around the plant area shall be kept well within the standards prescribed for by providing noise control measures including acoustic hoods, silencers, enclosures etc., on all the sources of noise generation. The ambient noise levels should conform to the standard prescribed under EPA rules, 1989 viz 75 dBA (Day time) and 70 dBA (Night time)	The Overall noise levels in and around the plant area are maintained well within the standards by providing required noise control measures such as acoustic enclosures, silencers on all sources of noise generation. Annexure 8.
13	The actual CSR funds utilized in future should at least be 2% of the annual profit but not less than Rs.33.60 Lakh per annum	Agreed upon.
14	A separate environmental Management cell equipped with full-fledged laboratory facilities to carry out the various environmental management and monitoring functions shall be set up under the control of a senior	A separate environmental Management cell equipped with full-fledged laboratory facilities to carry out the various environmental management and monitoring functions is

	executive.	available.
15	The requisite amount earmarked towards capital cost and recurring cost / annum for implementing pollution control measures shall be used judiciously to implement the environment management plan as furnished in the EIA report. The funds so provided shall not be diverted for any other purpose.	Agreed upon.
16	The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of the MoEF, CC, GOI at Chennai the respective zonal office of CPCB and the SPCB. The criteria pollutant levels namely RSPM, So ₂ , Nox (Ambient levels as well as stack emissions) or critical sector parameters, indicated for the projects shall be monitored and displayed at a convenient locations near the main gate of the company in the public domain.	The status of compliance of the stipulated environmental clearance conditions, including the results of the monitored data are uploaded in the website and simultaneously sent to the regional office of MoEFCC, respective zonal office. The pollutant levels namely RSPM, SOX, NOX (Ambient levels as well as stack emissions) are monitored and displayed near the main gate of the company in the public domain.
17	The environmental statement for each financial year ending 31 st march in form V as is mandated to be submitted by the project proponent 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 conditions and shall also be sent to the respective regional offices of the MoEF by e mail.	The environment statement for each financial year ending 31 st March in Form V is being submitted to the concerned state pollution control Board as prescribed under the Environment(Protection)Rules 1986, as amended subsequently and also published in the company website along with the compliance of environmental conditions and the same is being sent to the respective regional offices of the MoEF CC.
18	The environmental Clearance is valid for 7 years from the date of issue	Agreed upon.
19	Environmental clearance is being issued without prejudice to the action initiated under Environment (Protection) Act 1986 or any court case pending or any other court order shall prevail	Agreed upon.
20	The SEIAA TN may alter/modify the above conditions or stipulate any further condition in the interest of Environment protection	Agreed upon.
21	The SEIAA/SEAC or any competent authority may suitably add any further conditions on receiving reports from the project authority. The above condition shall be monitored by the Regional office of MoEF located at Chennai.	Agreed upon.
22	The SEIAA TN may revoke or suspend the Environmental	Agreed upon.

	clearance, if implementation of any other above conditions is not satisfactory	
23	The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA notification, 2006, if, at any stage of the validity of this Environmental Clearance, if it is found or if it comes to the knowledge of this SEIAAA, TN that the project proponent has deliberately concealed and or submitted false or misleading information or inadequate data or submitted misleading information or inadequate data for obtaining the Environmental clearance.	Agreed upon.
24.	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) act 1986.	Agreed upon.
25	This SEIAA – TN reserves the right to stipulate additional conditions if found necessary. The industry in a time bound manner shall implement these conditions	Agreed upon.
26	The above conditions will be enforced inter alia , under the provisions of the water (Prevention & Control of pollution) Act 1974, the air (Prevention and control of pollution) Act 1981, The Environment protection act 1986, the public Liability insurance Act 1991, along with their amendments draft minor mineral conservation & development rules – 2010 framed under MMDR Act 1957, national commission for protection of Child Right Rules 2006 and rules made there under and also any other orders passed by the hon'ble supreme court of India Hon'ble High Court of Madras and any other courts of law relating to the subject matter.	Agreed upon.
27	Any appeal against this environmental clearance shall lie with the Hon'ble national green tribunal, if preferred, with in a period of 30 days as prescribed under section 16 of the National Green Tribunal Act 2010.	Agreed upon.