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NATIONAL AWARD
FOR EXCELLENCE IN
CORPORATE GOVERNANCE

ENV/Cement/23

May 31, 2023

Addl. Principal Chief Conservator of Forests (C),
Ministry of Env., Forest and Climate Change
Integrated Regional Office, I floor, Additional Office Block for GPOA,
ShastriBhawan, Haddows Road, Nungambakkam, Chennai 600 006

Dear Sir,

Sub: Submission of six monthly compliance reports for the conditions stipulated in the Environmental clearances (EC)-Reg.

Ref: (i) SEIAA- TN/ F- 3082/KAR/ 3(b)/EXP/EC – 8/2014 dated 12.03.2015
(ii) SEIAA/TN/ EC/ 3(b) 005/F-166/2010 dated 21/05/2010

This refers to the ECs issued for TNPL for the for the project of modernization/ Upgradation of TNPL Mini Cement Plant and Installation of TNPL Mini Cement Plant vide reference ref (i) and ref (ii) respectively.

In compliance to the general condition stipulated in the respective ECs, the six monthly compliance reports against the special and general conditions stipulated in the ECs for the period between 01/10/2022 and 31/03/2023 are submitted herewith as detailed below:

Sl No	Description	Type of Condition	Details of compliance report submission
01	TNPL Mini Cement Plant Expansion (as per ref (i))	Special conditions	Submitted as Part I
02	TNPL Mini Cement Plant Expansion (as per ref (i))	General conditions	Submitted as Part II
03	Installation of TNPL Mini Cement (as per ref (ii))	Special conditions	Submitted as Part III
04	Installation of TNPL Mini Cement (as per ref (ii))	General conditions	Submitted as Part IV

This is for your kind information and records.

Thanking You.

Yours faithfully,

For Tamilnadu Newsprint and Papers Limited,


CHEIF GENERAL MANAGER (PRDSO)

- CC: (1) The Member Secretary, SEIAA, Saidapet, Chennai – 600 005.
(2) The Member Secretary, TNPCB, Guindy, Chennai.
(3) The Regional Directorate, Central Pollution Control Board, Chennai
(4) The Joint Chief Environmental Engineer, TNPCB, Salem.
(5) The District Environmental Engineer, TNPCB, Karur

Corporate Office : 67, Mount Road, Guindy, Chennai - 600 032.

TNPL - The Corporate Identity Number : L 22121 TN 1979 PL C 007799

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responsible forestry

EC Compliance Status Report

State Environment Impact Assessment Authority, Tamil Nadu vide Order No. SEIAA-TN/ F-3082/KAR/ 3(b)/EXP/EC-8/2014 dated 12.03.2015 accorded Environmental Clearance (EC) for the project of modernization/upgradation of TNPL mini Cement Plant, Kagithapuram for enhancement of cement production capacity from 0.22MTPA (600 TPD) to 0.33 MTPA (900 TPD) at SF Nos. 841, 842,843,844,809 & 837 of PunjaiPugalur Village, ManmangalamTaluk, Karur District.

The commercial production of the unit was commenced on 15/12/2012. The unit is in continuous operation. The expanded unit was commissioned during Jan '16 and was formally inaugurated on 29/01/2016. The consent to Operate for the expansion was accorded on 19/01/2016 and renewal Consent to Operate under both Water and Air Acts for TNPL Mini Cement Plant was accorded during Aug'22 with a validity till31-03-2027.

The status of compliance to each condition stipulated in the Environmental Clearance for the period ending 31 March' 2023 (for the period between **01/10/2022 and 31/03/2023**) is given below:

COMPLIANCE TO THE SPECIFIC CONDITIONS (PART- I)

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
1	The modernisation / expansion project shall comply with the new discharge emission standards of MoEF & CC issued vide GSR 612 (E) dated 25.08.2014 with respect to particulate Matter, SO ₂ , NO _x for cement sector.	TNPL Mini Cement plant is being complying with the new emission standards of MoEF & CC issued vide GSR 612 (E) dated 25.08.2014 with respect to Particulate Matter, SO ₂ and NO _x prescribed for Cement sector.The ROA ofStack emission monitoring survey carried out by TNPCB during Feb'23is submitted herewith as Annexure-1 and the ROA of stack monitoring carried out by NABL accredited agency October'22 to March'23 is submitted as Annexure-2B which reveals that the emission levels are within the norms prescribed by the board.
2	Continuous online stack monitoring facility to monitor gaseous emission from the process kiln stack shall be provided. Bag filter with adequate height of stack shall be provided for the control of particulate emission from the chloride bypass system proposed in the modernization project. It shall be ensured that	Online monitoring system for SPM has been installed in the main stacks viz. Kiln, Cooler, Coal Mill, Cement Mill and Packaging Plant and linked to TNPCB 'Care Air Centre' since 23.01.2014. Further, SO ₂ and NO _x are being continuously monitored in Kiln stack (RABH)and real time data are being electronically transmitted to CARE AIR CENTRE located in TNPC Board Office, Chennai. The Real Time stack emissions data submitted as Annexure- 3 which reveals that the emissions from the respective stacks are within the norms prescribed by Board.

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
	<p>adequate APC measures are provided for the control of process emissions and the permissible limit of particulate Matter shall be achieved at all time. Low NOx burners shall be provided to control NOx emissions. Regular calibration of the instruments must be ensured.</p>	<p>Further, TNPL has provided the additional Air Pollution Control Measures to control process emissions from the following process equipments installed as part of upgradation/modernization.</p> <p>Chloride bypass system: 360 Bag filters with stack with a height of 69.3 meters are installed for control of Particulate matter from the chloride bypass system.</p> <p>Pre-calciner prior to Kiln: The pre-calciner has been installed "inline" with kiln circuit as part of expansion. Hence, two more new modules (312 Nos of bags @ 156 bags per module) has been included in addition to the original six modules (936 Nos of bags @ 156 bags per module) in the Reverse Air Bag House (RABH) of kiln circuit to meet the emission norms.</p> <p>Secondary Crusher system: Two stacks have been installed for the secondary crushing system as detailed below:</p> <p>Secondary Crusher stack 1: 144 filter bags with a stack height of 39.6meters have been installed for the control of Particulate matter from the Secondary crusher Stack I system.</p> <p>Secondary Crusher stack 2: 196 filter bags with a stack height of 39.6meters have been installed for the control of Particulate matter from the Secondary crusher Stack 2 system.</p> <p>In order to have a better combustion and controlled flame length, a multichannel burner has been installed instead of uniflow type. Calibrations of instruments are being carried out by external agencies and copies of the respective reports are submitted as Annexure-3A.</p>
3	<p>All the pollution control devices/equipment in raw mill/kiln, kiln feeding system, clinker cooler, coal mill, cement mill and cement silo shall be interlocked so that in the event of the pollution control devices/systems not working, the respective unit(s) shut down automatically.</p>	<p>Interlocking facility has been provided to all Pollution control equipments to trip respective air pollution control equipments installed in the operating units, viz. Raw mill/kiln, kiln feeding system, clinker cooler, coal mill and cement mill in case of emission level exceeding the stipulated value / Pollution Control devices are not working from the respective operating units.</p>

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
4	Proper and full utilization of CO ₂ gas present in the gaseous emission from the kiln is used nearby/ adjacent industry for the production of precipitated calcium carbonate shall be ensured.	The CO ₂ gas present in the gaseous emission from the kiln is being supplied for the production of Precipitated Calcium Carbonate in the M/s Omya India Private Limited located adjacent to TNPL Mini Cement Unit.
5	An interlocking system shall be provided so as to ensure that whenever the ESP is not in operation, the raw material feeder will automatically stop and restart only with the restart of ESP.	TNPL has installed reverse air bag house (RABH) for Raw mill / Kiln circuit & ESP in the Clinker Cooler system. Interlocking has been provided for stoppage of Kiln and raw material feeder either ESP or RABH is not in operation. Further, the interlocking system will allow to resume operation of the respective unit only after restart of the respective Air Pollution Control unit.
6	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of practice issued by the CPCB in this regard shall be followed.	<p>In the Cement Plant,</p> <ul style="list-style-type: none"> ➤ Raw materials viz. crushed lime stone, coal, clay and gypsum are stored in fully covered/closed sheds. ➤ Lime sludge and fly ash (received from TNPL Paper Plant) are stored in closed RCC silos. ➤ Clinker and Cement are also stored in RCC silos only. ➤ TNPL has installed dust collection and extraction system at all material transfer points to control the fugitive emissions. ➤ All material transportations are done in closed pipe and fully closed/covered conveyors. ➤ Pneumatic system is in place for transporting fly ash from bowsers to silo and mechanical dosing for adding fly ash to cement mill. ➤ About 700 meters long conveyors are utilized internally to transport raw and finished materials. ➤ All the conveyors are closed in order to avoid any spillage or fugitive emission. <p>Besides, the following are implemented towards reduce impact on transportation of raw material and end products:</p> <ul style="list-style-type: none"> ❖ No overloading of transport vehicles with materials. ❖ Loaded trucks are covered with tarpaulin. ❖ Vehicles with valid 'Pollution under Control' Certificates are allowed. ❖ A separate Truck Parking Area is earmarked near the Main Gate which is fully concreted. ❖ Ramp with BT road is provided at the crusher.

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
		<ul style="list-style-type: none"> ❖ All the roads to the tune of 1.68 Kms are concretized. ❖ Mechanised road sweeping machine is used regularly for cleaning the roads to avoid fugitive emissions. ❖ Water sprinklers are provided near the clinker silo, cement grinding, lime and coal handling areas. ❖ Wind barricades for a total length of 1395 meters with 20 feet above the compound wall are provided. <p>Fugitive emissions in the work zone environment are being carried through independent NABL accredited agencies and ROA of the review period is submitted as Annexure-2D.</p>
7	Arsenic and Mercury shall be monitored periodically in emissions, ambient air and water.	<p>Periodical monitoring of Arsenic and Mercury are being carried out through independent accredited agencies as part of Environmental monitoring. The survey report carried out by external agencies for the Environmental parameters viz., Ambient Air, Stack Emission and ground water locations as indicated in the EIA report for the year 2022-23 is submitted as Annexure – 2 as detail below</p> <p>Annexure-2A -Ambient Air Quality, Annexure 2B -Stack Emission, Annexure 2F -Ground Water analysis report.</p>
8	The coal storage yard shall be lined and covered.	The coal received from the TNPL main plant is stored in a coal shed having adequate storage capacity of 250 MT. The shed is totally covered and also provided with side walls.
9	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment. All the raw materials including coal, fly ash shall be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.	Reply has been already submitted under a separate heading to reduce impact on transportation of raw material and end products as part of the response to the condition no 6 (Part I) of this compliance report.

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE								
10	Total fresh water requirement after the proposed modernisation of the cement plant shall not exceed 300 m ³ /day as reported. The fresh water requirement shall be/ must be drawn from the River Cauvery with proper approval obtained from concerned authority.	<ul style="list-style-type: none"> ➤ The total fresh water quantity including domestic requirement is maintained below 300 cu.m /day even after modernization/up gradation of the Cement mill. ➤ TNPL has been permitted to draw 16 MGD (72,736 cu.m/day) water from River Cauvery vide TN GO (MS) No. 455 dated 29.10.2001. ➤ The fresh water demand of TNPL Cement Plant is being met from TNPL main plant. 								
11	Efforts shall be made to further reduce water consumption by using air cooled condensers.	As the Cement production involves only dry process, installation of Air Cooled Condenser is not applicable.								
12	Existing STP shall be operated continuously and effectively so as bring the quality of treated sewage to satisfy the discharge standards prescribed by Tamil Nadu Pollution Control Board. The treated sewage shall be utilised for dust suppression and green belt development.	TNPL Cement Plant had installed a package Sewage Treatment Plant of 20 cu.m/day in its premises and being operated. The treated sewage is fully utilized for dust suppression and green belt development within the mill premises. Copies of ROA of the sewage samples collected and analysed by TNPCB for the period between Oct'22 and Mar '23 are submitted as Annexure – 4 which reveals that the quality of treated sewage is within the norms prescribed by Tamil Nadu Pollution Control Board. .								
13	It shall be ensured that no process effluent shall be generated in the cement plant. No washing of lime sludge received from TNPL paper plant shall be carried out in the cement plant except dewatering/filtering and the filtrate shall be sent to TNPL paper plant thro' pipe line for reuse in the paper plant process as reported.	<p>The cement production involves only dry process and there is no trade effluent generation from the Plant. Further, the washing of entire lime sludge is done in the Paper plant itself using the process condensate generated in the evaporation plant. For easy transportation, the Lime sludge slurry from TNPL Main Plant (Paper Plant) is pumped with 95% moisture content through a pipeline to the slurry/mud washing plant located in the Cement Plant. In the cement plant, the sludge is simply dewatered and the filtrate is pumped back to the Paper Plant.</p> <p>Thus, there is no process effluent is generated either in Cement Production process or in the lime sludge handling plant.</p>								
14	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance	<p>Rain water harvesting measures have been provided to cover 904 sq. m roof tops in Cement Plant as detailed below :</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Marketing Office Roof</td> <td style="text-align: right;">- 83 Sq.M</td> </tr> <tr> <td>Administrative Office Roof</td> <td style="text-align: right;">- 276 Sq.M</td> </tr> <tr> <td>Time office and canteen</td> <td style="text-align: right;">- 115 Sq.M</td> </tr> <tr> <td>CCR building</td> <td style="text-align: right;">- 430 Sq.M</td> </tr> </table>	Marketing Office Roof	- 83 Sq.M	Administrative Office Roof	- 276 Sq.M	Time office and canteen	- 115 Sq.M	CCR building	- 430 Sq.M
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SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE																																													
	water requirement shall be met from other sources.	TNPL Cement plant fresh water requirement is met from the TNPL paper plant fresh water storage reservoir with a capacity of 5 Lac Cu.M. Storm water drains are provided to collect the surface runoffs from the Cement Plant in a collection pit with facility to pump the water to back to the reservoir. Hence, the collected rain water is fully utilized. Thedetail of Rain Water Harvesting Facilities is enclosed as Annexure- 5.																																													
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 EIA report for creating base line data shall be continued and report in this regard shall be furnished periodically to the Regional Office of MoEF& CC at Chennai & SPCB.	<p>Environmental Monitoring is being undertaken in every month as per EIA report and the latest survey report carried out during the review period is submitted as Annexure 2 (2A to 2F).</p> <ol style="list-style-type: none"> 1. Annexure-2A -Ambient Air Quality 2. Annexure 2B -Stack Emission 3. Annexure 2C– Ambient Noise 4. Annexure 2D - Fugitive Emission 5. Annexure 2E - Fresh Water analysis 6. Annexure 2F -Ground Water analysis 																																													
16	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorize recyclers only.	<p>TNPL has installed the following air pollution control (APC) measures in the Cement Plant :</p> <table border="1" data-bbox="703 1133 1390 1809"> <thead> <tr> <th>Name of the Stack</th> <th>APC Measure</th> <th>No. of Bags Installed</th> </tr> </thead> <tbody> <tr> <td colspan="3">Prior to Expansion</td> </tr> <tr> <td>Limestone Crusher</td> <td>Bag Filters</td> <td>70</td> </tr> <tr> <td>Kiln/Raw Mill</td> <td>RABH(6 modules)</td> <td>936</td> </tr> <tr> <td>Coal Mill</td> <td>Bag Filters</td> <td>231</td> </tr> <tr> <td>Cooler</td> <td>ESP</td> <td>-</td> </tr> <tr> <td>Cement Mill</td> <td>Bag Filters</td> <td>480</td> </tr> <tr> <td>Packing Plant</td> <td>Bag Filters</td> <td>170</td> </tr> <tr> <td colspan="3">Total No. of Bags (existing) 1,887</td> </tr> <tr> <td colspan="3">Post Expansion</td> </tr> <tr> <td>Chloride bypass system</td> <td>Bag Filters</td> <td>360</td> </tr> <tr> <td>Secondary Crusher(2 Nos.)</td> <td>Bag Filters</td> <td>144+196=340</td> </tr> <tr> <td>“Inline” Calciner with Kiln</td> <td>RABH (two additional modules)</td> <td>156*2=312</td> </tr> <tr> <td colspan="3">No of bags installed during expansion 1012</td> </tr> <tr> <td colspan="3">Total No. of Bags installed after expansion 2899</td> </tr> </tbody> </table> <p>Therefore, there are 2899 filter bags are available including 1012 bags installed during expansion. The system is designed in such a way that dust collected from these Bag Filters will be totally recycled within the cement manufacturing process itself. Spent oil and batteries shall be sold to authorized</p>	Name of the Stack	APC Measure	No. of Bags Installed	Prior to Expansion			Limestone Crusher	Bag Filters	70	Kiln/Raw Mill	RABH(6 modules)	936	Coal Mill	Bag Filters	231	Cooler	ESP	-	Cement Mill	Bag Filters	480	Packing Plant	Bag Filters	170	Total No. of Bags (existing) 1,887			Post Expansion			Chloride bypass system	Bag Filters	360	Secondary Crusher(2 Nos.)	Bag Filters	144+196=340	“Inline” Calciner with Kiln	RABH (two additional modules)	156*2=312	No of bags installed during expansion 1012			Total No. of Bags installed after expansion 2899		
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SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
		recyclers only.
17	<p>Fly ash generation from TNPL Captive Power Plant shall be utilized completely in the cement plant as per Fly ash Notification, 1999 & its amendment in 2003 & 2008. Efforts shall be made to use fly ash maximum in making Pozzolona Portland cement (PPC).</p> <p>A detailed study on chemical composition of coal used particularly heavy metal and radio activity contents shall be carried out through a reputed institute and report shall be submitted to Regional Office of the MoEF& CC at Chennai.</p>	<p>The fly ash generated from TNPL captive Power plant is being utilized for manufacturing of Pozzolona Portland cement (PPC).</p> <p>In compliance to this condition, imported coal was analysed an independent NABL accredited and MoEF recognized laboratory for composition, heavy metals and Radioactivity content etc., and the ROA of the same which is submitted as Annexure- 6.</p>
18	Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.	Only low grade lime stone with 75% to 85% purity is only used for Cement manufacturing. Further, TNPL Cement plant was installed only to handle the solid wastes such as lime sludge and fly ash under “Lime Sludge Fly Ash Management” system.
19	Efforts shall be made to provide flexible fuel feeding system in the inlet of kiln in the modernisation project so as to enable the use of hazardous waste such as oil sludge, cut tyres, etc.	It is submitted that M/s TNPL Mini cement plant is already utilizing its unit-1 paper plant hazardous waste lime sludge and lime grits around 20-25% of its Raw meal which is more than the TNPCB targeted quantity of 3 to 4% fixed for other Major/ conventional cement industries. Based on the above, TNPCB had accorded exemption for co processing of tanneries and dying CETP sludge in LSFM cement kiln and Copy of exemption letter is enclosed as Annexure - 7. Further, as per this direction TNPL was permitted by TNPCB to achieve TSR target of 10% during 2022. Present level of TNPL TSR is 15.92 % .Hence ,this condition is compiled.
20	The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc., as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term	

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
	utilisation of such wastes as per the EP Act, 1986 and with necessary approvals.	
21	As proposed, green belt in an extend area of 6.250 hect (33 % of the total project area) shall be developed within cement plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward wind direction and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.	<p>TNPL Mini Cement Plant has developed and maintaining the green belt as per the guidance of CPCB and also in consultation with local DFO.</p> <p>The current details of comprised green belt along with relevant photographs and maps are submitted as Annexure- 8.</p>
22	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.	The status of compliance against the Corporate Responsibility for Environment Protection (CREP) for the Cement plants by TNPL Cement plant is submitted as Annexure – 9.
23	All the responses received during public notice of EIA report shall be satisfactorily implemented and a separate budget of Rs. 25 lakhs allotted for implementing the same shall be utilised only for the purposes and a report shall be submitted to the TNPCB, Regional Office of MoEF & CC at Chennai after implementation.	All the responses received during the public notice of EIA report has been implemented and the compliance report of the same was submitted to concerned Statutory authorities during Aug'16. Proof of submission of compliance to concerned authorities is submitted as Annexure-10.
24	The proponent shall prepare a detailed CSR plan for every next 5 years for the existing – cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of	Compliance to this condition has been submitted as Annexure –11 and details of CSR schemes carried out and other relevant details during 2022-23 published in the respective Annual report submitted as Annexure – 11A. The soft copies of annual reports are also available in TNPL website www.tnpl.co.in for ready reference.

SL. NO	SPECIAL CONDITIONS	STATUS OF COMPLIANCE
	<p>village roads, avenue plantation, etc.,) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to Regional Office of MoEF & CC at Chennai. The details of the CSR plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the Company.</p>	
25	<p>Risk Assessment and Disaster Management Plan with focus on Disaster Prevention and Safety shall be prepared and a copy submitted to the Regional Office of MoEF & CC at Chennai, SPCB and CPCB.</p>	<p>Copies of Risk Assessment and On Site Emergency Plan for Disaster Management approved by Director, Industrial Safety and Health, Chennai were already submitted along with the first six monthly compliance reports.</p>

COMPLIANCE TO THE GENERAL CONDITIONS (PART – II)

SL.NO	COMPLIANCE	CONDITIONS
a	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 TNPCB and also at the Website of the SEIAA, TN at http://www.seiaa.tn.gov.in .	The compliance details are enclosed as Annexure - 12
b	A copy of the Environmental Clearance shall be sent by the project proponent to concerned panchayat, local body, and local NGO, if any from whom suggestions/representatives, if any were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company.	Copies of Environmental clearance furnished to Kagithapuram Panchayat and those from whom the responses were received while processing the file are submitted as Annexure-13. A copy of Environmental Clearance is also uploaded in the TNPL's website www.tnpl.com .
c	The State Pollution Control Board should display a copy of the Environmental Clearance issued to the project at the Regional office, District Industry Centre and the Collector's office/Thasildar's office for 30 days.	Compliance on this regard was undertaken by the TNPCB during that period.

SL.NO	COMPLIANCE	CONDITIONS
d	Consent from Tamil Nadu Pollution Control Board shall be obtained before start of modernisation project of the cement plant and also before commencement of enhancement production.	Consent To Establish and Consent To Operate were obtained during Jan'16 including for the expansion activities. Renewal Consent to Operate under both Water and Air Acts for the period till 31/03/2027 were also obtained and copies of the same is submitted as Annexure-14 along with this report.
e	All stipulations made by TNPCB and the State government shall be strictly complied with.	All the stipulations made by TNPC Board and State Government are being strictly complied with.
f	All the environmental protection measures and safeguards as recommended in the EIA report shall be complied with.	APC measures such as installation of additional fields and bag filters as recommended by EIA has been implemented as per the details submitted in response to the condition 16 (Part I) of this report.
g	The implementation of the project vis-à-vis environmental action plans shall be monitored by the Regional Office of MoEF & CC at Chennai/TNPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies regularly.	The periodical compliance status for the conditions stipulated in the Environmental Clearance are being submitted to MoEF's Regional Office, Zonal Office of CPCB and TNPCB. Submission details of the fifteen nos. of previous six monthly reports for the respective periods are submitted as Annexure-15.
h	Ambient air Quality Monitoring Stations shall be set up in the down wind direction as well as where maximum ground level concentration of RSPM, SO ₂ , NO _x , are anticipated. At least four ambient air quality monitoring stations should be established in the core zone as well as buffer zone for monitoring RSPM, SO ₂ and NO _x . Location of the monitoring stations should be decided in consultation with State Pollution Control Board based on the meteorological data, topographical features and environmentally and	Ambient Air Quality (AAQ) are being monitored at 6 locations covering both upward and downward wind directions through TNPCB air survey team and copy of the survey carried out during the review period is submitted as Annexure 1A. The ROA of AAQ are being submitted to concerned Statutory Authorities once in six months as part of submission of compliance against the conditions stipulated in the ECs.

SL.NO	COMPLIANCE	CONDITIONS
	ecologically sensitive targets and frequency of monitoring etc.	
i	Data on ambient air, stack and fugitive emissions shall be regularly submitted online to the regional office of MoEF & CC at Chennai, TNPCB and CPCB 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 ROA of Air Quality survey carried out by TNPCB are being submitted to concerned Statutory Authorities once in six months as part of submission of compliance against the conditions stipulated in the ECs. Further, the real time data on stack and ambient air quality are being displayed through electronic display board installed in public domain near the entrance of the Cement mill.
j	Occupational health surveillance of the staffs & workers shall be done on a regular basis and records maintained as per the Factories Act.	<p>TNPL has developed a full-fledged occupational health centre (OHC) comprising of four resident doctors, 3 nurses and 7 supporting staff.</p> <p>TNPL is periodically carrying out the following occupational health survey:</p> <ul style="list-style-type: none"> • Pre-employment medical examinations for new recruits are being carried out. • Eye test, Audiometry and Pulmonary Function Test are undertaken once in a year for all the employees and workers exposure to vulnerable working zones. • Master Health Check up for employees are being carried out during their service periods for four times, viz., whenever they cross the 40, 50, 55 & 59 years of age. • Records of the OHC are maintained and feedback is provided to the employees on any general guidance on the health aspects etc. • In case of any abnormality in the specified OHS tests, further investigation has been undertaken to provide proper medical support and guidance, if required. <p>The facility available at Occupational Health Centre and Occupational Health Survey report for the current period including health report copies of two employees carried out in the recent past are enclosed as Annexure - 16.</p>
k	Proper Housekeeping and cleanliness must be maintained within and outside the cement plant.	Proper housekeeping and cleanliness is being maintained in and around the Cement plant premises.
l	Occupational health	No Hazardous substance is used in the Cement

SL.NO	COMPLIANCE	CONDITIONS
	<p>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 centre shall be strengthened and the medical records of each employee should be maintained separately.</p>	<p>plant manufacturing process. Further, the medical record of the individual employees is also being maintained in the OHC. Reply has been already submitted in response to the condition No.j (Part-II) of this compliance report.</p>
m	<p>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 sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).</p>	<p>Necessary noise control measures such as acoustic hoods, silencers, enclosures etc., are provided on all sources of noise generation. Further, Anti vibrating pad has been provided in ball mills to mitigate the noise level. The noise survey carried out by External Agency during the review period is submitted as Annexure-2C</p>
n	<p>CSR activity shall be implemented as committed by drawing a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, providing sanitation facilities, drinking water supply in the government schools nearby, community awareness, establishment of health center, water supply to nearby villages and employment to local people whenever and wherever possible both for technical and non-technical jobs and protection of water sources around the project site etc.</p>	<p>Reply has been already submitted in response to the condition No.24 (Part-I) of this compliance report.</p>

SL.NO	COMPLIANCE	CONDITIONS
o	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 Senior Executive.	An Environmental Management Cell have been constituted to carry out the Environmental Management and Monitoring functions of TNPL Cement plant and a copy of Environment Management Cell is submitted as Annexure - 17.
p	The earmarked amount of Rs. 2.5 crores towards capital cost and Rs. 5 lakhs/annum towards 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 purposes.	The budgetary provision of 2.5 crores is fully utilized for implementing all the environmental Management Plan such as installation of two more new modules with 312 bags @156 bags per module for Reverse Air Bag House and 340 filter bag with two stacks for the secondary crusher and 360 filter bags with stack for the newly proposed chloride bypass system and that surrounding area also covered by asbestos sheets to control the fugitive dust emission.
q	The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including result of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF & the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Reply has already submitted against the compliance to the conditions (g) and (i) of Part II of this report.
r	The project proponent shall	Reply has already submitted against the compliance

SL.NO	COMPLIANCE	CONDITIONS
	<p>also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of MoEF & CC at Chennai, CPCB & SPCB shall monitor the stipulated conditions.</p>	<p>to the conditions (g) of Part II of this report.</p>
s	<p>The environmental statement for each financial year ending 31st March in Form-V as in 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.</p>	<p>The environmental statement for the period ending 31st March-2022 is submitted as Annexure-18 which was already along with six monthly compliance report for the period ending 31/03/2022. Further, a copy of Form V is also made available in the website of the company along with status of compliance to conditions stipulated in the Environmental Clearance. A copy of compliance report against the conditions accorded in the Environmental Clearance is also periodically sent to the respective Offices by e-mail.</p>

**Status of compliance for the conditions stipulated in the Environmental Clearance
accorded by SEIAA for the Cement Plant**

(Order No.SEIAA/TN/EC/3(b)005/F-166/2010 Dated 21/05/2010)

SI.No	E.C Conditions	STATUS
A	PART – III SPECIFIC CONDITIONS -Environment Management Measures	
i)	"Consent for Establishment" for expansion shall be obtained from Tamil Nadu Pollution Control Board and a copy shall be furnished to the SEIAA, Tamil Nadu before taking up any activity at the site.	Consent for Establishment was received from TNPCB on 22/07/10 and Consent to Operate was received on 06/12/2012. Subsequent details of Consents of the Expansion has been already submitted in response to the condition 'd' of Part II of this document.
ii)	The water requirement shall not exceed 450 KLD which shall be met from River Cauvery as proposed.	Reply has been already submitted in response to the condition 10 of Part I of this document.
iii)	The treated wastewater from STP and utilities shall be utilized for green belt development and other plant related activities i.e. dust suppression in raw material handling area etc. after necessary treatment.	Reply has been already submitted in response to the condition no 12 Part-I of this compliance report.
iv)	No trade effluent shall be generated from the process section. Zero discharge shall be strictly adopted and no effluent from the process shall be discharged outside the premises.	Reply has been already submitted in response to the condition no 13 under Part-I of this compliance report.
v)	Solid waste viz. cement dust etc. from air pollution control equipments (bag filters etc.) shall be properly recycled and utilized in the process itself for cement manufacturing. No solid waste shall be disposed off outside the factory premises.	All the solid wastes are recycled within the process itself and no solid wastes is disposed off from the factory premises.
vi)	The stack emission from all the sources shall not exceed 50 mg/Nm ³ . Cyclone separators with highly efficient bag filters shall be provided to control emissions from grinding and packing unit and transfer point so that the emissions are within 50 mg/Nm ³ .	Reply has been already submitted in response to the condition no 02 under Part-I of this compliance report.
vii)	Grinding shall be carried out in closed system. At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation through suitable interlocking arrangement and shall not be restarted	Grinding is being carried out in closed system only. The details of interlocking facility has been submitted in response to the conditions no.03 and 05 under Part-I of this compliance report.

Sl.No	E.C Conditions	STATUS
	until the desired efficiency has been achieved.	
viii)	<p>Secondary fugitive emission shall be controlled within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed. The unit shall install adequate dust Collection and extraction system to control fugitive dust emissions at material transfer points as committed. Atomized water spray system with reclaimers shall be installed in the silo used for the storage of ash.</p> <p>Storage of raw materials shall be in closed roof sheds. Covered conveyor belt shall be used for fugitive emissions. Concreting of all the roads, water sprinkling systems at limestone and coal handling area shall be provided to reduce fugitive emissions as committed.</p>	Reply has been already submitted in response to the condition no.6 under Part I of this compliance report.
ix)	Efforts shall be made to reduce impact due to the transport of the raw materials and end production the surrounding environment including agricultural land.	Reply has been already submitted under a separate heading to reduce impact on transportation of raw material and end products as part of the response to the condition no.6 (Part I) of this compliance report.
x)	The fugitive emissions during loading and unloading shall be suitably controlled. Fugitive emissions in the work zone environment, product and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the Tamil Nadu Pollution Control Board / Central Pollution Control Board.	Reply has been already submitted in response to the condition no.6 under Part I of this compliance report.
xi)	The proponent shall provide adequate Air Pollution Control Measures as committed to various emission sources to satisfy the Ambient Air Quality/ Emission standards prescribed by the TNPCB.	Reply has been already submitted in response to the condition no.16 (Part I) of this compliance report.
xii)	Ambient air quality monitoring systems (AAQMS) shall be set up as per statutory requirement. The location of ambient air quality monitoring station shall be decided in consultation with the TNPCB and it shall be ensured that at least one station is installed in the upwind and another in the downwind direction as	Reply has been already submitted in response to the condition no. 'h' under Part II of this compliance report.

Sl.No	E.C Conditions	STATUS
	well as where maximum ground level concentrations are anticipated.	
xiii)	The unit shall make the arrangements for utilisation of the high calorific hazardous waste in the kiln and necessary provisions shall be made accordingly. The unit shall keep the record of waste utilized and shall submit the details to the Regional Office, CPCB at Bangalore, and SPCB.	Reply has been already submitted in response to the condition no.19 & 20 under Part I of this compliance report.
xiv)	The proponent shall provide anti-vibrating pad to ball mill to mitigate the noise to satisfy the Ambient Noise Level Standards prescribed by the TNPCB.	Anti vibrating pad has been provided in ball mills to mitigate the noise level.
xv)	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) Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Reply has been already submitted in response to the condition no. 'm' under Part II of this compliance report.
xvi)	The proponent shall provide adequate width of Green belt to control fugitive emission & noise and shall be developed in 33% area as per the CPCB guidelines in a time bound manner.	Reply has been already submitted in response to the condition no.21 under Part I of this compliance report.
xvii)	Rainwater harvesting measures shall be adopted for the augmentation of ground water at cement plant, colony and mine site. Besides, company must also harvest the rainwater from the rooftops and storm water drains to recharge the ground water and reduce the water requirement pressure from the river.	Reply has been already submitted in response to the condition no.14 under Part I of this compliance report.
xviii)	All the recommendations of the Corporate Responsibility for Environmental Protection (CREP) shall be strictly followed.	Reply has been already submitted in response to the condition no.22 under Part I of this compliance report.
xix)	Vehicular emission should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in the transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	Reply has been already submitted under a separate heading to reduce impact on transportation of raw material and end products as part of the response to the condition no.6 under Part I of this compliance report.

Sl.No	E.C Conditions	STATUS
xx)	The company shall comply with all commitments made during public consultation.	All the responses received during the public notice of EIA report has been implemented and the compliance report upon implementation of the various schemes based on the responses received during public notice is submitted to concerned offices during Aug'16 as per point no 23 of Part –I under of this compliance report
xxi)	The proponent shall furnish an undertaking that they will abide by the conditions / recommendations mentioned in the EIA / EMP report furnished by them.	Proof of submission of compliance to concerned authorities is submitted in response to the condition no.23 under Part I of this compliance report along with the submission of EC compliance for the review period as of 31/03/2022.
xxii)	It is mandatory for the project proponent to furnish to the SEIAA, Half yearly compliance report in hard and soft copies on 1st June and 1st December of each year in respect to the conditions stipulated in the prior Environmental clearance.	Reply has been already submitted in response to the condition no.G under Part II of this compliance report.
xxiii)	Online monitor for air emissions of SO ₂ , NO _x and SPM shall be provided for the stacks.	Reply has been already submitted in response to the condition no.02 under Part I of this compliance report.
xxiv)	Filter press shall be provided instead of sludge drying beds for treating the sludge from STP.	The quantity of sludge generation from the Sewage Treatment Plant is very minimum and inadequate to handle through a filter press. Hence, the sludge is being handled through sludge drying beds only.
xxv)	The unit shall furnish the details of the activities proposed under Corporate Social Responsibility for an amount of Rs. 2 Crores within 30 days from the date of Environmental Clearance.	Reply has been already submitted in response to the condition no.24 under Part I of this compliance report.
xxvi)	a) The unit shall not store the lime sludge in the open yard and the excess Lime sludge if any shall be disposed to the authorized dealer approved by the TNPCB as committed.	60% of the lime sludge generated is recycled in Paper manufacturing unit after carrying out re-burning in two lime kilns, The balance 40% is fully utilized as part of raw material for TNPL Mini Cement plant.
	b) Also the unit shall provide an RCC silo of 1000MT capacity in the plant premises for storage of lime sludge as committed.	Lime sludge silo with a capacity of 1000MT was installed and in continuous operation.
xxvii)	The proponent shall implement the Ozone Treatment Facility to reduce colour in the treated effluent from the Pulp and Paper Plant of TNPL as committed in the letter dt.08.05.2010.	The unit has implemented tertiary treatment to reduce colour in the treated effluent by Ozonation at a capital out lay of Rs.400 lakhs (Rs.200 for Ozonation and Rs.200 of Oxygen feed plant). The unit was commissioned on 06th August 2010 and is in service. The operating

Sl.No	E.C Conditions	STATUS
		expenditure will be about Rs.70 lakhs per annum. In addition to colour reduction in the final treated effluent, the ozonation will further improve dissolved oxygen in the treated effluent.
xxviii)	This environmental clearance does not imply that the other statutory / administrative clearance shall be granted to the project by the concerned authorities. Such authorities should be considering the project on merits and take decisions independently of the Environmental Clearance	TNPL shall abide to comply with this condition.

GENERAL CONDITIONS - PART - IV

Sl.No	E.C Conditions	STATUS
i)	The environmental clearance does not absolve the applicant / proponent of his obligation / requirement to obtain other statutory and administrative clearance from other statutory and administrative authorities.	TNPL shall abide to comply with this condition.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA. In case of deviations or alterations in the project proposal from those submitted for clearance, a fresh reference shall be made to the SEIAA to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Expansion had been undertaken after obtaining requisite Environmental clearance from SEIAA and the compliance against conditions of the same is submitted under Part I and Part II of this compliance report.
iii)	Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per Factories Act.	Reply has been already submitted in response to the condition no. J & I under Part II of this compliance report.
iv)	Proper housekeeping programs shall be taken up.	Being carried out.
v)	Usage of Personal Protective Equipment (PPEs) by all employees/ workers shall be ensured.	Being strictly adhered.
vi)	This Environmental Clearance is valid for five years from the date of issue.	Noted.
vii)	The project proponent shall comply with the environmental protection measures and safeguards proposed in the EPM report.	All the environmental protection measures have been complied with.

Sl.No	E.C Conditions	STATUS
viii)	A separate Environmental Management Cell shall be set up to carry out the Environmental Management and Monitoring functions.	Reply has been already submitted in response to the condition no.O under Part II of this compliance report.
ix)	<p>The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public</p> <ol style="list-style-type: none"> 1. The project has been accorded Environmental Clearance. 2. Copies of clearance letters are available with the TNPCB. 3. Environmental Clearance may also be seen on the website of the SEIAA. <p>The advertisement should be issued within 7 days from the date of issue of the clearance letter and a copy of the same shall be forwarded to the SEIAA.</p>	Reply has been already submitted in response to the condition no.a (Part III) of this compliance report.
x)	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	All conditions stipulated in the EC are being implemented.
xi)	The SEIAA reserves the right to stipulate additional conditions, if found necessary. The proponent shall implement these conditions in a time bound manner.	TNPL shall comply additional conditions, if any stipulated by SEIAA.
xii)	The above conditions will be enforced, inter-alia under the provisions of the Water (Preservation & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1986, Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	TNPL is complying with all relevant environmental legislation and regulations.
xiii)	All other statutory clearances such as the approval for the storage of diesel from Chief Controller of Explosives, Fire and Rescue Services Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wild Life (Protection) Act, 1972, State / Central Ground Water Authority, Coastal Regulatory Zone Authority, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the	Out of all above clearances given only Fire & Rescue Services department clearance is applicable to TNPL mini cement plant. A copy of only Fire & Rescue Licence is submitted as Annexure – 19.

Sl.No	E.C Conditions	STATUS
	competent authorities.	
xiv)	The Environmental Statement for each financial year ending 31st march in Form – V as in mandated has to be submitted by the project proponent to the TNPCB as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the Regional Office of MoEF, Bangaluru be e-mail.	Reply has been already submitted in response to the condition no.S under Part II of this compliance report.
xv)	The proponent shall submit six monthly reports on the status of compliance of the stipulated EC 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 MoEF, Bangalore, the respective Zonal Office of CPCB, Bangalore and the TNPCB (both Hard copies as well as by e-mail). The criteria pollutant levels namely ; SPM, RSPM, SO2, NOX (ambient levels as well stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main of the company in the Public domain.	Reply has already submitted against the compliance to the conditions (g) and (i) of Part II of this report.
xvi)	A copy of the clearance letter shall be sent by the proponent to the Executive Officer, Kagithapuram, Karur District and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	The copy of Environment clearance was submitted to Executive Officer, Kagithapuram, Karur District on 28/05/10 and the proof of letter is enclosed in Annexure- 20 The EC issued for the Cement Plant had been hosted in TNPL's website.

DETAILS OF ANNEXURES		
DESCRIPTION		
SL.NO	ANNEXURE NO	EC COMPLIANCE
1	ANNEXURE 1	TNPCB ROA FOR STACK MEASUREMENTS.
2	ANNEXURE 1 A	TNPCB ROA FOR AAQMS MEASUREMENTS.
3	ANNEXURE 2 A	EXTERNAL AGENCY TEST REPORT - AAQMS .
4	ANNEXURE 2 B	EXTERNAL AGENCY TEST REPORT - STACK .
5	ANNEXURE 2 C	EXTERNAL AGENCY TEST REPORT - NOISE.
6	ANNEXURE 2 D	EXTERNAL AGENCY TEST REPORT - FUGITIVE EMISSION.
7	ANNEXURE 2 E	EXTERNAL AGENCY TEST REPORT - RAW WATER.
8	ANNEXURE 2 F	EXTERNAL AGENCY TEST REPORT - GROUND WATER.
9	ANNEXURE 3	ONLINE MONITORING DATA - STACK & AMBIENT.
10	ANNEXURE 3 A	CALIBRATION CERTIFICATE OF THE ONLINE INSTRUMENT.
11	ANNEXURE 4	TNPCB ROA OF STP WATER.
12	ANNEXURE 5	RAIN WATER HARVESTING MEASURES.
13	ANNEXURE 6	EXTERNAL AGENCY TEST REPORT - IMPORTED COAL .
14	ANNEXURE 7	EXEMPTION LETTER OF CETP SLUDGE.
15	ANNEXURE 8	GREEN BELT DEVELOPMENT.
16	ANNEXURE 9	CREP ACTION POINTS & COMPLIANCE.
17	ANNEXURE 10	MEP / EIA / COMPLIANCE FOR 0.22 TPA TO 0.33 TPA.
18	ANNEXURE 11	CSR ACTIVITIES .
19	ANNEXURE 11 A	CSR ACTIVITIES - ANNUAL REPORT.
20	ANNEXURE 12	INFORMATION LETTER TO LOCAL PUBLIC / NEWS PAPER ADVERTISEMENT.
21	ANNEXURE 13	ENVIRONMENTAL CLEARANCE.
22	ANNEXURE 14	COPY OF CTO.
23	ANNEXURE 15	SUBMISSION OF SIX MONTHLY REPORT DETAILS.
24	ANNEXURE 16	OCCUPATIONAL HEALTH AND SAFETY.
25	ANNEXURE 17	ENVIRONMENTAL MANAGEMENT CELL.
26	ANNEXURE 18	ENVIRONMENTAL STATEMENT.
27	ANNEXURE 19	FIRE LICENCE.
28	ANNEXURE 20	LETTER TO TOWN PANCHAYAT REG.SEIAA CLEARANCE.





Report No.DEL/DGL/67

TAMILNADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Dindigul.

STACK MONITORING SURVEY - Report of Analysis

Report No.TNPCB/DEL/DGL/F.No.72/SM/2022-2023, Date:26.04.2023

1. Name of the Industry : M/s. Tamilnadu News Print and Papers Ltd.,
2. Address of the Industry : LSFM Cement Plant Division,
Kagithapuram- 639 136.
Karur District.
3. Date of survey : 27.02.2023 & 28.02.2023

Stack Monitoring Survey Results

Sl. No	Stack attached to	Stack Temp °C	Velocity in (m/sec)	Discharge rate in (Nm ³ /Hr)	Pollutants (mg/Nm ³)		
					PM	SO ₂	NO _x
1.	Coal Mill	86	10.07	15,299	25.0	75.0	56.0
2.	Clinker Cooler ESP	143	5.42	25,158	23.0	21.0	27.0
3.	Raw Mill Kiln	235	11.97	81,185	28.0	37.0	42.0
4.	Cement Mill	75	8.58	21,337	26.0	-	-
5.	Packing Plant	55	8.33	14,011	30.0	-	-
6.	Limestone Secondary Crusher - I	61	8.41	10,783	28.0	-	-
7.	Limestone Secondary Crusher - II	63	8.43	17,367	26.0	-	-
8.	Primary Crusher (Lime stone crusher)	43	8.18	4,745	30.0	-	-

End of the report

D. Karthick
27/04/2023
Env. Scientist

J. Sreeni 27/04/2023
Deputy Chief Scientific Officer,
DEL, TNPCB, Dindigul.



Report No.DEL/DGI/13

TAMILNADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Dindigul.

AMBIENT AIR QUALITY SURVEY - Report of Analysis.**Report No. F.No.72/TNPCB/DEL/DGL/AAQS/2022-2023, Date:28.09.2022.**

1. Name of the Industry : M/s. Tamilnadu News Print and Papers Ltd.,
 2. Address of the Industry : LSFM Cement Plant Division,
 Kagithapuram- 639 136.
 Karur District.
 3. Date of Survey : 10.08.2022 & 11.08.2022
 4. Duration of Survey : 24 Hrs.
 5. Category : Red - Large.
 6. Land use classification : Industrial
 7. Type of Industry : Cement Plant

Meteorological Conditions

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	23°C	35°C		55%	82%
Weather Condition	Clear Sky		Rain Fall (mm)	Nil	
Predominant Wind Direction	SW → NE		Mean Wind Speed (Km/hr)	11.13 Km/hr.	

Ambient Air Quality Survey Average Results (24 Hrs)

Sl. No	Location	Direction *	Distance (m) *	Height from CL	Pollutants Concentration (µg/m ³)			
					PM _{2.5}	PM ₁₀	SO ₂	NO ₂
1	On top of the scaffolding at unit's Lime stone stock yard.	NE	250	3	51.0	91.0	24.0	30.0
2	On top of Thiru.P.Nachimuthu House, Door No.26, Colony, Moorthipalayam,	E	700	4	-	82.0	22.0	28.0
3	On top of Thiru.P.K.Periyasamy House, Door No.5/75, Thathampalayam.	SE	700	4	-	78.0	19.0	25.0
4	On top of scaffolding in open area near two wheelers parking area at unit premises.	SW	150	4	36.0	66.0	13.0	19.0
5	On top of Thiru. A.Sakthivel House, Door No.7, Nattukkai - 5 th street, Moolimangalam.	W	400	4	-	71.0	16.0	22.0
6	On top of scaffolding near TNPL Water Reservoir BR-3, Pump House,	NW	800	4	-	74.0	19.0	25.0

Note: All the values are restricted to the sampling period of 08.00 Hrs Average of 24.00 Hours
 End of the report

V. S. S. S. S.
 28/09/2022
 Jr.Env.Scientist

[Signature]
 29/09/2022
 Deputy Chief Scientific Officer,
 DEL, TNPCB, Dindigul.



Report No.DEL/DGL/67

TAMILNADU POLLUTION CONTROL BOARD

District Environmental Laboratory, Dindigul.

AMBIENT AIR QUALITY SURVEY - Report of Analysis.

Report No. F.No.72/TNPCB/DEL/DGL/AAOS/2022-2023, Date:26.04.2023

1. Name of the Industry : M/s. Tamilnadu News Print and Papers Ltd.,
2. Address of the Industry : LSFM Cement Plant Division,
Kagithapuram- 639 136.
Karur District.
3. Date of Survey : 27.02.2023 & 28.02.2023
4. Duration of Survey : 24 Hrs.
5. Category : Red - Large.
6. Land use classification : Industrial
7. Type of Industry : Cement Plant

Meteorological Conditions

Ambient Temperature (°C)	Min	Max	Relative Humidity (%)	Min	Max
	26 °C	34 °C		52 %	81 %
Weather Condition	Clear Sky		Rain Fall (mm)	NIL	
Predominant Wind Direction	NE → SW		Mean Wind Speed (Km/hr)	8.76 Km/hr.	

Ambient Air Quality Survey Average Results (24 Hrs)

Sl. No	Location	Direction *	Distance (m) *	Height from GL	Pollutants Concentration (µg/m ³)			
					PM _{2.5}	PM ₁₀	SO ₂	NO ₂
1	On top of the scaffolding at unit's Lime stone stock yard.	NE	250	3	35.0	89.0	25.0	32.0
2	On top of Thiru.P.Nachimuthu House, Door No.26, Colony, Moorthipalayam,	E	700	4	-	66.0	21.0	28.0
3	On top of Thiru.P.K.Periyasamy House, Door No.5/75, Thathampalayam.	SE	700	4	-	71.0	22.0	29.0
4	On top of scaffolding in open area near two wheelers parking area at unit premises.	SW	150	4	49.0	99.0	26.0	33.0
5	On top of Thiru. A.Sakthivel House, Door No.7, Nattukkal - 5 th street, Moolimangalam.	W	400	4	-	82.0	24.0	31.0
6	On top of scaffolding near TNPL Water Reservoir BR-3, Pump House.	NW	800	4	-	77.0	23.0	30.0

Note: All the values are restricted to the sampling period of 08.00 Hrs Average of 24.00 Hours
End of the report

Shastri
27/04/2023
Env.Scientist

Shastri
27/04/2023
Deputy Chief Scientific Officer,
DEL, TNPCB, Dindigul.



TEST REPORT

ULR No : TC858222000008299F

Report No : EN22100046-01 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSPM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 13 to 14 Oct 2022
 Sample No : EN22100046-01 02:00 pm to 02:00pm
 Sample Location : Lime stone stock yard at LSM unit Sample Received on : 18 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Relative Humidity : 60 % Test Completed on : 27 Oct 2022
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	10.90	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	24.70	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	52.80	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	21.00	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#6/1st Floor, Chinnel Street, Nellikudam Street, Balavanayagar Nagar, Arundel Street, Chennai - 600101.

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TEST REPORT

ULR No : TC050222000000300F

Report No : EN22100046-02 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kogilthapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 13 to 14 Oct 2022
 Sample No : EN22100046-02 02:20 pm to 02:20pm
 Sample Location : Mr.P.Nachimuthu House Sample Received on : 10 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Relative Humidity : 60 % Test Completed on : 27 Oct 2022
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	13.80	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	17.90	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	45.80	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	14.80	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

471, 1st Floor, Sri Pillai Colony, 1st, Manjappan Street, Palasivayal, Pongar, Arumbakkani, Chennai - 600106.

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TEST REPORT

ULR No : TC050222000008301F

Report No : EN22100046-03 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 13 to 14 Oct 2022
 Sample No : EN22100046-03 02.40 pm to 02:40pm
 Sample Location : Mr.K.Periyasamy House Sample Received on : 18 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Relative Humidity : 60 % Test Completed on : 27 Oct 2022
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	16.10	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	20.40	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	49.30	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	20.60	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#6/1, 1st floor, Sowalee Enclave, Jeyagesan Street, Balajinagar, Koyyalambalam, Chennai - 600105.

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TEST REPORT

ULR No: TC858222000008302F

Report No : EN22100046-04 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kallthapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 13 to 14 Oct 2022
 Sample No : EN22100046-04 03:00 pm to 03:00pm
 Sample Location : Two wheeler parking area at LSFM Unit Sample Received on : 18 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Relative Humidity : 60 % Test Completed on : 27 Oct 2022
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	10.90	µg/m ³	00
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	30.90	µg/m ³	60
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	53.10	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	21.90	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	µg/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#1, Uthirakottai, Sri Lanka Complex, Marudhesan Street, Palavinayagam, Thiruvananthapuram, Chennai - 600017

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TEST REPORT

ULR No : TC858222000008303F

Report No : ENZZ100046-05 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 13 to 14 Oct 2022
 Sample No : EN22100046-05 03:10 pm to 03:10pm
 Sample Location : Mr.A.Sakthivel House Molimangalam Sample Received on : 18 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Relative Humidity : 60 % Test Completed on : 27 Oct 2022
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	9.10	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	19.30	µg/m ³	90
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	61.50	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	25.70	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

Plot 1st Floor, Sri Jothi Complex, Murgesan Street, Balasamudra, P.O., Arumbakkam, Chennai - 600100.

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TEST REPORT

ULR No : TC858222000008304F

Report No : EN22100046-06 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality
 Sample No : EN22100046-06
 Sample Location : TNPL Water Reservoir BR -03
 Sample Condition : Fit for Analysis
 Relative Humidity : 60 %
 Sampling Procedure : IS 5182 Part V & XIV

Sampling Date & Time : 13 to 14 Oct 2022
 03:30 pm to 03:30pm
 Sample Received on : 18 Oct 2022
 Test Started on : 18 Oct 2022
 Test Completed on : 27 Oct 2022
 Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	13.50	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	22.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	46.90	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	16.00	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5102 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a) Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (38) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signature
 E. PRITHIVIRAJAN
 LAB MANAGER

76/1, 1st Floor, Sri Indri Complex, Kamarajar Street, Laluvazhagar Nagar, Annambakkam, Chennai - 600105.

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TEST REPORT

ULR No : TC850222000009625F

Report No : EN22120010-01 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSPM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality
 Sample No : EN22120010-01
 Sample Location : Mr.P.Nachimuthu House(Moorthipalayam)
 Sample Condition : Fit for Analysis
 Relative Humidity : 61.1 %
 Sampling Procedure : IS 5182 Part V & XIV

Sampling Date & Time : 29 to 30 Nov 2022
 10.00 am to 10:30 am
 Sample Received on : 03 Dec 2022
 Test Started on : 03 Dec 2022
 Test Completed on : 08 Dec 2022
 Ambient Temperature : 34°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	14.00	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	25.90	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5102 (Part 23):2006	59.40	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	27.70	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004 ⁵³	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999 ⁵⁵	BDL(DL:1.14)	mg/m ³	1
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3D) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit., DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHVIRAJAN
LAB MANAGER

#6/1st Floor, Smart Inn Complex, Murugesan Street, Balasambalagar Nagar Arushikavem, Chennai - 600106

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TEST REPORT

ULR No : TC050222000009626F

Report No : EN22120010-02 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Nov 2022
 Sample No : EN22120010-02 10:30 am to 10:30 am
 Sample Location : Mr.K.Periyasamy House(Thathampalayam) Sample Received on : 03 Dec 2022
 Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
 Relative Humidity : 62 % Test Completed on : 08 Dec 2022
 Sampling Procedure : IS 5102 Part V & XIV Ambient Temperature : 34°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	9.30	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5102 (Part 6):2006	17.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5102 (Part 23):2006	54.50	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	24.40	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5102 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3D) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHVIRAJAN
LAB MANAGER

#6/ 1st Floor, Sri Latha Complex, Murugesan Street, Balavanayagar Nagar, Annamalaiyam, Chennai - 600106.

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TEST REPORT

ULR No: TC850222000010565F

Report No : EN22120057-01 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Dec 2022
 Sample No : EN22120057-01 09:00 am to 09:00am
 Sample Location : Lime stone stock yard at LSFM unit Sample Received on : 30 Dec 2022
 Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
 Relative Humidity : 56 % Test Completed on : 05 Jan 2023
 Sampling Procedure : IS 5102 Part V & XIV Ambient Temperature : 32°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	12.90	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	25.60	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	54.60	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	22.00	µg/m ³	60
5	Ozone as O ₃	IS 5102 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5102 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5102 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-
14	Hydrogen Sulphide as H ₂ S*	IS 5102 (Part 7)	BDL(DL:10.0)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

8th/1st Floor, 34/35th Complex, Marudasan Street, Balavinyayagar Nagar, Annambakkam, Chennai - 600106.

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TEST REPORT

ULR No : TC858222000010566F

Report No : EN22120057-02 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Dec 2022
 Sample No : EN22120057-02 09:20 am to 09:20am
 Sample Location : Mr.P.Nachimuthu House(Moorthipalayam) Sample Received on : 30 Dec 2022
 Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
 Relative Humidity : 61.1 % Test Completed on : 05 Jan 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 32°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	15.50	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	29.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	60.60	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	28.20	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-
14	Hydrogen Sulphide as H ₂ S*	IS 5182 (Part 7)	BDL(DL:10.0)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

Address: Floor, Sri Vithal Complex, Al. Nagarajan Street, Sakinaka, Jayar Nagar, Arumbakam, Chennai - 600006

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TEST REPORT

ULR No : TC858222000010566F

Report No : EN22120057-03 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Ambient Air Quality

Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Dec 2022

Sample No : EN22120057-03 09:40 am to 09:40am

Sample Location : Mr.K.Periyasamy House(Thathampalayam) Sample Received on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022

Relative Humidity : 62 % Test Completed on : 05 Jan 2023

Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 32°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	10.90	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	18.90	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	54.80	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	24.90	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-
14	Hydrogen Sulphide as H ₂ S*	IS 5182 (Part 7)	BDL(DL:10.0)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

Plot No. 10, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600106

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TEST REPORT

ULR No : TC858222000010567F

Report No : EN22120057-04 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Ambient Air Quality

Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Dec 2022

Sample No : EN22120057-04 10:00 am to 10:00am

Sample Location : Two wheeler parking area at LSFM Unit Sample Received on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022

Relative Humidity : 58 % Test Completed on : 05 Jan 2023

Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	14.90	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	30.60	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	54.00	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	24.90	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	RDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-
14	Hydrogen Sulphide as H ₂ S*	IS 5182 (Part 7)	RDL(DL:10.0)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#01, Ist Floor, Sri Sairam Complex, Arumbakkam, Balajinagar, Arumbakkam, Chennai - 600106

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TEST REPORT

ULR No : TC850222000010568F

Report No : EN22120057-05 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Dec 2022
 Sample No : EN22120057-05 10.00 am to 10.00am
 Sample Location : Mr.A.Sakthivel House Molimangalam Sample Received on : 30 Dec 2022
 Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
 Relative Humidity : 58 % Test Completed on : 05 Jan 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	10.10	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	20.70	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	61.40	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	26.10	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-
14	Hydrogen Sulphide as H ₂ S*	IS 5182 (Part 7)	BDL(DL:10.0)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (30) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detectinn Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

no. 1, 1st Floor, Sri Jothi Complex, Murugesan Street, (to be) noyaga) Nagar, Arumakkam, Chennai - 600106.

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TEST REPORT

ULR No : TC858222000010569F

Report No : EN22120057-06 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Ambient Air Quality

Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Dec 2022

Sample No : EN22120057-06 10:30 am to 10:30am

Sample Location : TNPL Water Reservoir BR -03 Sample Received on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022

Relative Humidity : 58.6 % Test Completed on : 05 Jan 2023

Sampling Procedure : IS 5102 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5102 (Part 2):2001	16.60	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5102 (Part 6):2006	22.30	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5102 (Part 23):2006	45.80	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	18.00	µg/m ³	60
5	Ozone as O ₃	IS 5102 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5102 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5102 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5102 (Part 22):2004	BLQ(LOQ:2.0)	µg/m ³	-
12	Nickel as Ni	IS 5102 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5102 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-
14	Hydrogen Sulphide as H ₂ S*	IS 5102 (Part 7)	BDL(DL:10.0)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

4th Floor, Sri Jothi Complex, Marudasan Street, Balayinavayal Nagar, Arumbakkam, Chennai - 600102

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TEST REPORT

OLR No : TC85822300000479F

Report No : EN23010038-05 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Jan 2023
 Sample No : EN23010038-05 05.00pm to 05.50pm
 Sample Location : Mr.A.Sakthivel House Molimangalam Sample Received on : 02 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 02 Feb 2023
 Relative Humidity : 58.24% Test Completed on : 06 Feb 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 32.6°C


Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	10.90	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	20.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	61.30	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	24.00	µg/m ³	60
5	Ozone as O ₃	IS 5102 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/06	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signatures
 E. PRITHVIRAJAN
 LAB MANAGER

#5/1, 1st Floor, Sri Jothi Complex, Murugeshan Street, Indrayogayagar Nagar, Arundhanai, Chennai - 600105

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TEST REPORT

ULR No: TC85822300000480F

Report No : EN23010038-06 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Jan 2023
 Sample No : EN23010038-06 05.15pm to 05.15pm
 Sample Location : TNPL Water Reservoir BR-03 Sample Received on : 02 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 02 Feb 2023
 Relative Humidity : 58.2 % Test Completed on : 06 Feb 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 32.6°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	18.30	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	25.60	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	47.10	µg/m ³	100
4	Particulate Matter (PM 2.5)	GI/EN/SOP/062	16.96	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GI/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GI/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GI/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN,
LAB MANAGER

Glens Innovation Labs Pvt Ltd, 5th Floor, Complex, Anna Salai Street, Balaji Nagar, Arumbakkam, Chennai - 600106.

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TEST REPORT

ULR No : TC85822300000478F

Report No : EN23010038-04 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Jan 2023
 Sample No : EN23010038-04 04.50pm to 04.50pm
 Sample Location : Two wheeler parking area at LSFM Unit Sample Received on : 02 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 02 Feb 2023
 Relative Humidity : 58.6 % Test Completed on : 06 Feb 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	17.00	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	30.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	49.80	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	20.60	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#0/31st Floor, 10th Cross, Murugesan Street, Pettah, Nayagar Nagar, Chennai - 600100

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TEST REPORT

ULR No : TC85822300000477F

Report No : EN23010038-03 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karer - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Jan 2023
 Sample No : EN23010038-03 04:35 pm to 04:35pm
 Sample Location : Mr.K.Periyasamy House(Thathampalayan) Sample Received on : 02 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 02 Feb 2023
 Relative Humidity : 59.6 % Test Completed on : 06 Feb 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C


Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	10.90	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	19.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	51.60	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	22.00	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signature
 E. PRITHIVIRAJAN
 LAB MANAGER

Address: Srinathi Complex, 14, Rajagopal Street, Baluvanambakkam, Anna Nagar, Chennai - 600017

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TEST REPORT

ULR No : TC85B223000000475F

Report No : EN23010030-01 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Jan 2023
 Sample No : EN2301D030-01 04:00 pm to 04:00pm
 Sample Location : Lime stone stock yard at LSFM unit Sample Received on : 02 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 02 Feb 2023
 Relative Humidity : 58.60 % Test Completed on : 06 Feb 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	17.00	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	25.60	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	50.60	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	20.90	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-JNS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

66/1 - The 4th Floor, Tirumathi Complex - M. Ganesan Street, Saivijayavagar Nagar, Anna Nagar, Chennai - 600106

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TEST REPORT

ULR No: TC858223000000476F

Report No : EN23010038-02 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Jan 2023
 Sample No : EN23010038-02 04:15 pm to 04:15pm
 Sample Location : Mr.P.Nachimuthu House(Moorthipalayam) Sample Received on : 02 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 02 Feb 2023
 Relative Humidity : 58.6 % Test Completed on : 06 Feb 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	13.00	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	27.00	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	57.00	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	25.00	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signature
 E. PRITHVIRAJAN
 LAB MANAGER

#6/1st Floor, Sri Jothi Complex, Murugan Street, B. Narayana Nagar, Arumbakkam, Chennai - 600106

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Glens Innovation Labs Pvt Ltd.

NAAC ACCREDITED BS EN ISO/IEC 17025 2017 CERTIFIED AS PER ISO 9001:2015 & ISO 45001 2018



TEST REPORT

ULR No : TC858223000001163F

Report No : EN23020058-01 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 20 to 21 Feb 2023
 Sample No : EN23020058-01 03:10pm to 03:16pm
 Sample Location : TNPL Water Reservoir BR -03 Sample Received on : 24 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
 Relative Humidity : 49% Test Completed on : 06 Mar 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 34°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	18.8	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	26.1	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	47.9	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	16.0	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

2nd Floor, Sri Jothi Complex, Murugesh Street, Balasubramanyam Nagar, Arumbakkam, Chennai - 600106.

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Glens Innovation Labs Pvt Ltd.

NABL ACCREDITED AS PER ISO/IEC 17025:2017, CERTIFIED AS PER ISO 9001:2015 & ISO 45001:2018



TEST REPORT

ULR No : TC858223000001164F

Report No : EN23020058-02 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 20 to 21 Feb 2023
 Sample No : EN23020058-02 03.20pm to 03.20pm
 Sample Location : Mr.A.Sakthivel House Molimangalam Sample Received on : 24 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
 Relative Humidity : 48% Test Completed on : 06 Mar 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 34°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	12.4	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	20.9	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	62.4	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	23.1	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#5/1st Floor, SH Jothi Complex, Marudurai Street, Balavinasaga, Near Arumbikkam, Chennai - 600 106

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NABL ACCREDITED AS PER ISO/IEC 17025:2017 CERTIFIED AS PER ISO 9001:2015 & ISO 45001:2018



TEST REPORT

ULR No : TC858223000001165F

Report No : EN23020058-03 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kaggihapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 20 to 21 Feb 2023
 Sample No : EN23020058-03 03:45pm to 03:45pm
 Sample Location : Mr.K.Periyasamy House(Thathampalayan) Sample Received on : 24 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
 Relative Humidity : 49% Test Completed on : 06 Mar 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	14.4	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	18.0	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	52.5	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	22.9	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (38) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signature
 E. PRITHIVIRAJAN
 LAB MANAGER

#57/10, Floor, Sri Jothi Complex, Venkatesan Street, Balaichayagan Naga, Annambakkam, Chennai - 600106

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GLens Innovation Labs Pvt Ltd.

NAAL ACCREDITED AS PER ISO/IEC 17025:2017 CERTIFIED AS PER ISO 9001:2015 & ISO 14001:2015



TEST REPORT

ULR No : TC058223000001166F

Report No : EN23020058-04 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 20 to 21 Feb 2023
 Sample No : EN23020058-04 04:20pm to 04:20pm
 Sample Location : Mr.P.Narayanan House(Moorthipalayam) Sample Received on : 24 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
 Relative Humidity : 49% Test Completed on : 06 Mar 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 33°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	13.3	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	25.1	µg/m ³	60
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	54.3	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	21.9	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signature
 E. PRITHIVIRAJAN
 LAB MANAGER

NO.1,1st Floor, Sri Jothi Complex, Narugavan Street, Bharathiyagar Nagar, Annamalai University Campus - 600100

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Glens Innovation Labs Pvt Ltd.

MADE ACCORDING TO AS PER IS/IEC : 2025 2012, CERTIFIED AS PER ISO 9001:2015 & ISO 45001:2018



TEST REPORT

ULR No : TC858223000001167F

Report No : EN23020058-05 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 21 to 22 Feb 2023
 Sample No : EN23020058-05 03:40pm to 03:40pm
 Sample Location : Two wheeler parking area at LSFM Unit Sample Received on : 24 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
 Relative Humidity : 49 % Test Completed on : 06 Mar 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 32°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	20.9	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	30.4	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	48.4	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	18.1	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

R6/1, 1st Floor, 5th 10th Complex, Marudupet Street, Brahmavijayar Nagar, Arumbakkam, Chennai - 600105.

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GLens Innovation Labs Pvt Ltd.

NABL ACCREDITED AS PER ISO/IEC 17025:2017, CERTIFIED AS PER ISO 9001:2015 & ISO 45001:2018



TC - 8582

TEST REPORT

URL No : TC858223000001168F

Report No : EN2302005B-06 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 21 to 22 Feb 2023
 Sample No : EN2302005B-06 03:55pm to 03:55pm
 Sample Location : Lime stone stock yard at LSFM unit Sample Received on : 24 Feb 2023
 Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
 Relative Humidity : 49 % Test Completed on : 06 Mar 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 32°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	19.0	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	27.9	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	52.4	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	22.4	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

PG.11st Floor, Sri Jothi Complex, Madugesan Street, Balanarayagar Nagar, Arundhanam, Chennai - 600106

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TEST REPORT

ULR No : TC858223000002333F

Report No : EN23030079-01 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSPM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Mar 2023
 Sample No : EN23030079-01 02.10pm to 02.16pm
 Sample Location : TNPL Water Reservoir BR -03 Sample Received on : 02 April 2023
 Sample Condition : Fit for Analysis Test Started on : 02 April 2023
 Relative Humidity : 62 % Test Completed on : 06 April 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 35°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	22.1	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	28.6	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	53.5	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	21.9	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

Address: Floor, Scientific Centre - 2, Vigneshwari Road, H. Nagar, Thiruvananthapuram, Kerala - 600106

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TEST REPORT

ULR No : TC858223000002334F

Report No : EN23030079-02 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Name : Ambient Air Quality
Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Mar 2023
Sample No : EN23030079-02 02:20pm to 02:20pm
Sample Location : Mr.A.Sakthivel House Molimangalam Sample Received on : 02 April 2023
Sample Condition : Fit for Analysis Test Started on : 02 April 2023
Relative Humidity : 59% Test Completed on : 06 April 2023
Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 36°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	14.5	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	17.4	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	56.2	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	20.6	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	RLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit., DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHVIRAJAN
LAB MANAGER

GLens Innovation Labs Pvt Ltd., 11/11, 11/11, 11/11, Street, Palayamkottai, Karaikal, Tamil Nadu - 605006

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TEST REPORT

ULR No : TC858223000002335F

Report No : EN23030079-03 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Mar 2023
 Sample No : EN23030079-03 02:45pm to 02:45pm
 Sample Location : Mr.K.Periyasamy House(Thathampalayam) Sample Received on : 02 April 2023
 Sample Condition : Fit for Analysis Test Started on : 02 April 2023
 Relative Humidity : 59 % Test Completed on : 06 April 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 35°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	18.1	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	21.6	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	54.7	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	27.3	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature
 E. PRITHIVIRAJAN
 LAB MANAGER

Glens Innovation Labs Pvt Ltd, Complex No. 10, Phase 1, Sankaravayal Nagar, Arur, Tamil Nadu - 620002

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TEST REPORT

ULR No : TC85822300002336F

Report No : EN23030079-04 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 29 to 30 Mar 2023
 Sample No : EN23030079-04 03:00pm to 03:00pm
 Sample Location : Two wheeler parking area at LSFM Unit Sample Received on : 02 April 2023
 Sample Condition : Fit for Analysis Test Started on : 02 April 2023
 Relative Humidity : 59 % Test Completed on : 06 April 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 36°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	18.1	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	23.4	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	45.5	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	14.7	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/06	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

REG/1 Floor, Glens Innovation Labs Pvt Ltd, Complex, Murugesan Street, Belsi, Palayamkottai, Arundakkam, Tamil Nadu - 600106

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TEST REPORT

ULR No: TC858223000002337F

Report No : EN23030079-05 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Mar 2023
 Sample No : EN23030079-05 02:20pm to 02:20pm
 Sample Location : Mr.P.Nachimuthu House(Moorthipalayam) Sample Received on : 02 April 2023
 Sample Condition : Fit for Analysis Test Started on : 02 April 2023
 Relative Humidity : 62% Test Completed on : 06 April 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 36°C

Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	15.0	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	19.5	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	51.6	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	16.2	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	BLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3H) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


 Authorized Signature
 E. PRITHIVIRAJAN
 LAB MANAGER

Glens Innovation Labs Pvt Ltd., 10/10, 11/11, 12/12 Street, Balayinayaga, Puzosai, Aruppukottai, Tirunelveli - 627006

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TEST REPORT

ULR No : TC85822300002338F

Report No : EN23030079-06 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagichapuram, Karur - 639136.
 Sample Name : Ambient Air Quality
 Sample Description : Ambient Air Quality Sampling Date & Time : 30 to 31 Mar 2023
 Sample No : EN23030079-06 02:40pm to 02:40pm
 Sample Location : Lime stone stock yard at LSFM unit Sample Received on : 02 April 2023
 Sample Condition : Fit for Analysis Test Started on : 02 April 2023
 Relative Humidity : 60 % Test Completed on : 06 April 2023
 Sampling Procedure : IS 5182 Part V & XIV Ambient Temperature : 35°C

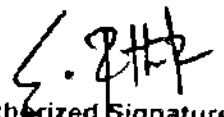
Test Results

Sl.No	Test Name	Test Method	Results	Units	Requirement as per NAAQS Specification
1	Sulphur Dioxide as SO ₂	IS 5182 (Part 2):2001	20.8	µg/m ³	80
2	Nitrogen Dioxide as NO ₂	IS 5182 (Part 6):2006	26.7	µg/m ³	80
3	Particulate Matter (PM 10)	IS 5182 (Part 23):2006	55.7	µg/m ³	100
4	Particulate Matter (PM 2.5)	GL/EN/SOP/062	20.3	µg/m ³	60
5	Ozone as O ₃	IS 5182 (Part 9):1974	BDL(DL:20)	µg/m ³	100
6	Lead as Pb	IS 5182 (Part 22):2004	BLQ(LOQ:0.002)	µg/m ³	1
7	Carbon Monoxide as CO (1 hour)	IS 5182 (Part 10):1999	BDL(DL:1.14)	mg/m ³	4
8	Ammonia as NH ₃	GL/EN/SOP/057	BDL(DL:20)	µg/m ³	400
9	Benzene	GL/EN/SOP/08	RLQ(LOQ:4.0)	µg/m ³	-
10	Benzo (a)Pyrene (Particulate Phase)	GL/EN-INS/SOP/09	BLQ(LOQ:0.03)	ng/m ³	-
11	Arsenic as As	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
12	Nickel as Ni	IS 5182 (Part 22):2004	BLQ(LOQ:2.0)	ng/m ³	-
13	Mercury as Hg	IS 5182 (Part 22):2014	BLQ(LOQ:0.002)	µg/m ³	-

Remarks : The above Sample complies as per NAAQS limit which is provided in the environmental protection Rule 3 (3B) Nov.2009, against the above tested parameter.

Note : BDL: Below Detection Limit, DL: Detection Limit / NAAQS: National Ambient Air Quality Standard

End of Report


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 E. PRITHIVIRAJAN
 LAB MANAGER

Unit: 30/1, 30/2, 30/3, 30/4, 30/5, 30/6, 30/7, 30/8, 30/9, 30/10, 30/11, 30/12, 30/13, 30/14, 30/15, 30/16, 30/17, 30/18, 30/19, 30/20, 30/21, 30/22, 30/23, 30/24, 30/25, 30/26, 30/27, 30/28, 30/29, 30/30, 30/31, 30/32, 30/33, 30/34, 30/35, 30/36, 30/37, 30/38, 30/39, 30/40, 30/41, 30/42, 30/43, 30/44, 30/45, 30/46, 30/47, 30/48, 30/49, 30/50, 30/51, 30/52, 30/53, 30/54, 30/55, 30/56, 30/57, 30/58, 30/59, 30/60, 30/61, 30/62, 30/63, 30/64, 30/65, 30/66, 30/67, 30/68, 30/69, 30/70, 30/71, 30/72, 30/73, 30/74, 30/75, 30/76, 30/77, 30/78, 30/79, 30/80, 30/81, 30/82, 30/83, 30/84, 30/85, 30/86, 30/87, 30/88, 30/89, 30/90, 30/91, 30/92, 30/93, 30/94, 30/95, 30/96, 30/97, 30/98, 30/99, 30/100

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TEST REPORT

ULR No : TC858222000008305F

Report No : EN22100046-07 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Stack Emission
 Sample No : EN22100046-07 Sampling Date : 14 Oct 2022
 Sample Identification : Lime stone secondary crusher stack -02 Sample Received on : 18 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Sampling Procedure : GL/EN/SOP/111 Test Completed on : 27 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	14.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	30	°c	-
06	Velocity	EPA Method 1-3	9.73	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	21470	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
Page 1 of 1

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#6/1,1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar,Arumbakkam, Chennai - 600106.

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TEST REPORT

ULR No : TC858222000008306F

Report No : EN22100046-08 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22100046-08 Sampling Date : 14 Oct 2022
Sample Identification : Lime stone secondary crusher stack -01 Sample Received on : 18 Oct 2022
Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 27 Oct 2022

Test result


S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	8.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	30	°c	-
06	Velocity	EPA Method 1-3	5.47	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	7486	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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Authorized Signature
E. PRITHVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000008307F

Report No : EN22100046-09 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22100046-09 Sampling Date : 14 Oct 2022
Sample Identification : Lime stone Primery crusher stack Sample Received on : 18 Oct 2022
Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 27 Oct 2022


Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	9.70	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	32	°c	-
06	Velocity	EPA Method 1-3	7.72	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	4406	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000008308F

Report No : EN22100046-10 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22100046-10 Sampling Date : 14 Oct 2022
Sample Identification : Kiln Raw mill (RABH) Sample Received on : 18 Oct 2022
Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 27 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	33	mg/Nm ³	-
02	Particulate Matter *	GL/EN/SOP/113	18.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂ *	EPA Method 6	53.00	mg/Nm ³	100
04	Oxides Of Nitrogen as NO _x *	GL/EN/SOP/149	195	mg/Nm ³	800
05	Temperature	IS 11255 (Part -3):2008	169	°c	-
06	Velocity	EPA Method 1-3	9.38	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	69728	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* Results at 10% Oxygen level

.....End of Report.....
Page 1 of 1


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LAB MANAGER

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TEST REPORT

ULR No : TC858222000008310F

Report No : EN22100046-12 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Stack Emission
 Sample No : EN22100046-12 Sampling Date : 13 Oct 2022
 Sample Identification : Cement mill Sample Received on : 18 Oct 2022
 Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
 Sampling Procedure : GL/EN/SOP/111 Test Completed on : 28 Oct 2022


Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	11.80	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	69	°c	-
06	Velocity	EPA Method 1-3	13.36	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	32699	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
Page 1 of 1


 Authorized Signature
E. PRITHVIRAJAN
 LAB MANAGER

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TEST REPORT

ULR No : TC858222000008309F

Report No : EN22100046-11 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22100046-11 Sampling Date : 14 Oct 2022
Sample Identification : Chloride By pass system Sample Received on : 18 Oct 2022
Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 28 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	12.50	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	118	°c	-
06	Velocity	EPA Method 1-3	8.33	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	16497	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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E. PRITHVIRAJAN
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TEST REPORT

ULR No : TC858222000008311F

Report No : EN22100046-13 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN22100046-13 Sampling Date : 14 Oct 2022

Sample Identification : Clinker cooler stack Sample Received on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022

Sampling Procedure : GL/EN/SOP/111 Test Completed on : 28 Oct 2022


Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	21.80	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part-3):2008	165	°c	-
06	Velocity	EPA Method 1-3	8.01	m/s	-
07	Volume of gas discharged	IS 11255 (Part-3):2008	33868	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858222000008312F

Report No : EN22100046-14 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN22100046-14 Sampling Date : 14 Oct 2022

Sample Identification : Coal mill Sample Received on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022

Sampling Procedure : GL/EN/SOP/111 Test Completed on : 28 Oct 2022

05

06	Velocity	EPA Method 1-3	16.19	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	25273	Nm ³ /hr	-
02	Particulate Matter	GL/EN/SOP/113	20.50	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	57	mg/Nm ³	-
05	Temperature	IS 11255 (Part -3):2008	65	°c	-
06	Velocity	EPA Method 1-3	16.19	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	25273	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858222000008313F

Report No : EN22100046-15 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN22100046-15 Sampling Date : 14 Oct 2022

Sample Identification : Packing plant Sample Received on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Started on : 18 Oct 2022

Sampling Procedure : GL/EN/SOP/111 Test Completed on : 28 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	14.70	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part-3):2008	30	°c	-
06	Velocity	EPA Method 1-3	12.60	m/s	-
07	Volume of gas discharged	IS 11255 (Part-3):2008	21894	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

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TEST REPORT

ULR No : TC858222000009627F

Report No : EN22120010-03 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-03 Sampling Date : 29 Nov 2022
Sample Identification : Lime stone Primery crusher stack Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	10.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	31	°c	-
06	Velocity	EPA Method 1-3	10.00	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	5808	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

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TEST REPORT

ULR No : TC858222000009628F

Report No : EN22120010-04 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-04 Sampling Date : 29 Nov 2022
Sample Identification : Lime stone secondary crusher stack -02 Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	12.10	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	32	°c	-
06	Velocity	EPA Method 1-3	10.60	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	13838	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

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TEST REPORT

ULR No : TC858222000009629F

Report No : EN22120010-05 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kaglthapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-05 Sampling Date : 29 Nov 2022
Sample Identification : Lime stone secondary crusher stack -01 Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result


S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	15.60	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	32	°c	-
06	Velocity	EPA Method 1-3	11.40	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	15565	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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TEST REPORT

ULR No : TC858222000009630F

Report No : EN22120010-06 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-06 Sampling Date : 29 Nov 2022
Sample Identification : Packing plant Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	12.20	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	32	°C	-
06	Velocity	EPA Method 1-3	11.70	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	20292	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858222000009631F

Report No : EN22120010-07 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-07 Sampling Date : 29 Nov 2022
Sample Identification : Clinker cooler stack Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	12.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	171	°c	-
06	Velocity	EPA Method 1-3	9.0	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	37666	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

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TEST REPORT

ULR No : TC858222000009632F

Report No : EN22120010-08 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-08 Sampling Date : 28 Nov 2022
Sample Identification : Kiln Raw mill (RABH) Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result


S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	20	mg/Nm ³	-
02	Particulate Matter *	GL/EN/SOP/113	17.50	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂ *	EPA Method 6	11.00	mg/Nm ³	100
04	Oxides Of Nitrogen as NO ₂ *	GL/EN/SOP/149	173	mg/Nm ³	800
05	Temperature	IS 11255 (Part -3):2008	160	°c	-
06	Velocity	EPA Method 1-3	9.04	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	69160	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* Results at 10% Oxygen level

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TEST REPORT

ULR No : TC858222000009633F

Report No : EN22120010-09 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136,
Sample Description : Stack Emission
Sample No : EN22120010-09 Sampling Date : 29 Nov 2022
Sample Identification : Chloride By pass system Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	9.60	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	109	°c	-
06	Velocity	EPA Method 1-3	8.70	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	17646	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
Page 1 of 1


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E. PRITHVIRAJAN
LAB MANAGER

#6/1,1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar,Arumbakkam, Chennai – 600106.

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TEST REPORT

ULR No : TC858222000009634F

Report No : EN22120010-10 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-10 Sampling Date : 29 Nov 2022
Sample Identification : Coal mill Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	24	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	14.30	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	81	mg/Nm ³	-
05	Temperature	IS 11255 (Part -3):2008	62	°c	-
06	Velocity	EPA Method 1-3	14.10	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	22369	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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TEST REPORT

ULR No : TC858222000009635F

Report No : EN22120010-11 Report Date : 14 Dec 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120010-11 Sampling Date : 29 Nov 2022
Sample Identification : Cement mill Sample Received on : 03 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 03 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 08 Dec 2022

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	15.80	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part-3):2008	74	°c	-
06	Velocity	EPA Method 1-3	11.40	m/s	-
07	Volume of gas discharged	IS 11255 (Part-3):2008	27339	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858222000010570F

Report No : EN22120057-07 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-07 Sampling Date : 28 Dec 2022
Sample Identification : Packing plant Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	12.10	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	31	°c	-
06	Velocity	EPA Method 1-3	11.86	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	20540	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858222000010572F

Report No : EN22120057-08 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-08 Sampling Date : 28 Dec 2022
Sample Identification : Lime stone secondary crusher stack -02 Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	10.60	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	31	°c	-
06	Velocity	EPA Method 1-3	8.90	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	12167	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

-----End of Report-----
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TEST REPORT

ULR No : TC858222000010573F

Report No : EN22120057-09 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-09 Sampling Date : 28 Dec 2022
Sample Identification : Lime stone secondary crusher stack -01 Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	16.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	32	°c	-
06	Velocity	EPA Method 1-3	5.67	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	7709	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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.....End of Report.....
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TEST REPORT

ULR No : TC858222000010574F

Report No : EN22120057-10 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-10 Sampling Date : 28 Dec 2022
Sample Identification : Cement mill Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	16.40	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	68	°c	-
06	Velocity	EPA Method 1-3	12.64	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	30530	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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.....End of Report.....
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TEST REPORT

ULR No : TC858222000010575F

Report No : EN22120057-11 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-11 Sampling Date : 28 Dec 2022
Sample Identification : Kiln Raw mill (RABH) Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	35	mg/Nm ³	-
02	Particulate Matter *	GL/EN/SOP/113	18.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂ *	EPA Method 6	38.00	mg/Nm ³	100
04	Oxides Of Nitrogen as NO ₂ *	GL/EN/SOP/149	184	mg/Nm ³	800
05	Temperature	IS 11255 (Part -3):2008	167	°c	-
06	Velocity	EPA Method 1-3	9.22	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	68850	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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* Results at 10% Oxygen level

.....End of Report.....
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TEST REPORT

ULR No : TC858222000010576F

Report No : EN22120057-12 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-12 Sampling Date : 28 Dec 2022
Sample Identification : Chloride By pass system Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	10.90	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	189	°c	-
06	Velocity	EPA Method 1-3	8.65	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	14473	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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TEST REPORT

ULR No : TC858222000010577F

Report No : EN22120057-13 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-13 Sampling Date : 28 Dec 2022
Sample Identification : Clinker cooler stack Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	14.60	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	164	°c	-
06	Velocity	EPA Method 1-3	8.07	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	34195	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858222000010578F

Report No : EN22120057-14 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Stack Emission
 Sample No : EN22120057-14 Sampling Date : 28 Dec 2022
 Sample Identification : Coal mill Sample Received on : 30 Dec 2022
 Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
 Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	35	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	14.10	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	67	mg/Nm ³	-
05	Temperature	IS 11255 (Part -3):2008	66	°c	-
06	Velocity	EPA Method 1-3	15.16	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	23595	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
Page 1 of 1

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E. PRITHIVIRAJAN
LAB MANAGER

#6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600106.

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TEST REPORT

ULR No : TC858222000010579F

Report No : EN22120057-15 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN22120057-15 Sampling Date : 28 Dec 2022
Sample Identification : Lime stone Primery crusher stack Sample Received on : 30 Dec 2022
Sample Condition : Fit for Analysis Test Started on : 30 Dec 2022
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	9.60	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	30	°c	-
06	Velocity	EPA Method 1-3	7.18	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	4487	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858223000000487F

Report No : EN23010038-13 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23010038-13 Sampling Date : 28 Jan 2023

Sample Identification : Packing plant Sample Received on : 30 Jan 2023

Sample Condition : Fit for Analysis Test Started on : 30 Jan 2023

Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 Feb 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	12.90	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	30	°c	-
06	Velocity	EPA Method 1-3	12.00	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	20966	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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TEST REPORT

ULR No : TC858223000000488F

Report No : EN23010038-14 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur – 639136.
Sample Description : Stack Emission
Sample No : EN23010038-14 Sampling Date : 28 Jan 2023
Sample Identification : Cement mill Sample Received on : 30 Jan 2023
Sample Condition : Fit for Analysis Test Started on : 30 Jan 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 Feb 2023


Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	19.00	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	64	°c	-
06	Velocity	EPA Method 1-3	13.20	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	29685	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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TEST REPORT

ULR No : TC858223000001169F

Report No : EN23020058-07 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY


Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23020058-07 Sampling Date : 20 Feb 2023
Sample Identification : Coal mill Sample Received on : 24 Feb 2023
Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 Mar 2023

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	27	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	11.90	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	116	mg/Nm ³	-
05	Temperature	IS 11255 (Part-3):2008	68	°c	-
06	Velocity	EPA Method 1-3	15.9	m/s	-
07	Volume of gas discharged	IS 11255 (Part-3):2008	24857	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858223000001170F

Report No : EN23020058-08 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23020058-08 Sampling Date : 20 Feb 2023
Sample Identification : Clinker cooler stack Sample Received on : 24 Feb 2023
Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 Mar 2023


Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	21.6	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	168	°c	-
06	Velocity	EPA Method 1-3	15.9	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	68679	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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.....End of Report.....
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TEST REPORT

ULR No : TC858223000001171F

Report No : EN23020058-09 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23020058-09

Report Date : 20 Feb 2023

Sample Identification : Kiln Raw mill (RABH)

Sample Received on : 24 Feb 2023

Sample Condition : Fit for Analysis

Test Started on : 24 Feb 2023

Sampling Procedure : GL/EN/SOP/111

Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	55	mg/Nm ³	-
02	Particulate Matter *	GL/EN/SOP/113	8.70	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂ *	EPA Method 6	20.0	mg/Nm ³	100
04	Oxides Of Nitrogen as NO ₂ *	GL/EN/SOP/149	195	mg/Nm ³	800
05	Temperature	IS 11255 (Part -3):2008	128	°c	-
06	Velocity	EPA Method 1-3	6.50	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	53696	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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* Results at 10% Oxygen level

.....End of Report.....
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TEST REPORT

ULR No : TC858223000001172F

Report No : EN23020058-10 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23020058-10 Sampling Date : 21 Feb 2023
Sample Identification : Chloride By pass system Sample Received on : 24 Feb 2023
Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	11.4	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	118	°c	-
06	Velocity	EPA Method 1-3	8.33	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	17722	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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TEST REPORT

ULR No : TC858223000001173F

Report No : EN23020058-11 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23020058-11

Sampling Date : 21 Feb 2023

Sample Identification : Lime stone Primery crusher stack

Sample Received on : 24 Feb 2023

Sample Condition : Fit for Analysis

Test Started on : 24 Feb 2023

Sampling Procedure : GL/EN/SOP/111

Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	7.90	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	32	°c	-
06	Velocity	EPA Method 1-3	16.3	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	9857	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

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TEST REPORT

ULR No : TC858223000001174F

Report No : EN23020058-12 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23020058-12 Sampling Date : 21 Feb 2023

Sample Identification : Packing plant Sample Received on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Started on : 24 Feb 2023

Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	14.7	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part-3):2008	32	°c	-
06	Velocity	EPA Method 1-3	10.9	m/s	-
07	Volume of gas discharged	IS 11255 (Part-3):2008	19023	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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TEST REPORT

ULR No : TC858223000001175F

Report No : EN23020058-13 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23020058-13

Sampling Date : 21 Feb 2023

Sample Identification : Lime stone secondary crusher stack -01

Sample Received on : 24 Feb 2023

Sample Condition : Fit for Analysis

Test Started on : 24 Feb 2023

Sampling Procedure : GL/EN/SOP/111

Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	10.60	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	30	°c	-
06	Velocity	EPA Method 1-3	6.8	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	9402	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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TEST REPORT

ULR No : TC858223000001176F

Report No : EN23020058-14 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23020058-14

Sampling Date : 21 Feb 2023

Sample Identification : Lime stone secondary crusher stack -02

Sample Received on : 24 Feb 2023

Sample Condition : Fit for Analysis

Test Started on : 24 Feb 2023

Sampling Procedure : GL/EN/SOP/111

Test Completed on : 06 Mar 2023

Test result


S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	13.4	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	30	°c	-
06	Velocity	EPA Method 1-3	8.20	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	18252	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....

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TEST REPORT

ULR No : TC858223000002339F

Report No : EN23030079-07 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23030079-07

Report Date : 31 Mar 2023

Sample Identification : Kiln Raw mill (RABH)

Sample Received on : 02 April 2023

Sample Condition : Fit for Analysis

Test Started on : 02 April 2023

Sampling Procedure : GL/EN/SOP/111

Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	76	mg/Nm ³	-
02	Particulate Matter *	GL/EN/SOP/113	11.6	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂ *	EPA Method 6	20.9	mg/Nm ³	100
04	Oxides Of Nitrogen as NO ₂ *	GL/EN/SOP/149	206	mg/Nm ³	800
05	Temperature	IS 11255 (Part -3):2008	125	°c	-
06	Velocity	EPA Method 1-3	7.14	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	59570	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

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* Results at 10% Oxygen level

.....End of Report.....

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TEST REPORT

ULR No : TC858223000002340F

Report No : EN23030079-08 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Stack Emission
 Sample No : EN23030079-08 Sampling Date : 31 Mar 2023
 Sample Identification : Lime stone secondary crusher stack -01 Sample Received on : 02 April 2023
 Sample Condition : Fit for Analysis Test Started on : 02 April 2023
 Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	13.4	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	31	°c	-
06	Velocity	EPA Method 1-3	11.6	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	15960	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858223000002341F

Report No : EN23030079-09 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23030079-09 Sampling Date : 31 Mar 2023
Sample Identification : Chloride By pass system Sample Received on : 02 April 2023
Sample Condition : Fit for Analysis Test Started on : 02 April 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	13.1	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	113	°c	-
06	Velocity	EPA Method 1-3	11.08	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	23834	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC85822300002341F

Report No : EN23030079-10 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23030079-10 Sampling Date : 31 Mar 2023
Sample Identification : Clinker cooler stack Sample Received on : 02 April 2023
Sample Condition : Fit for Analysis Test Started on : 02 April 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	20.7	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	166	°c	-
06	Velocity	EPA Method 1-3	10.7	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	45444	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858223000002342F

Report No : EN23030079-11 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Stack Emission

Sample No : EN23030079-11

Sampling Date : 31 Mar 2023

Sample Identification : Coal mill

Sample Received on : 02 April 2023

Sample Condition : Fit for Analysis

Test Started on : 02 April 2023

Sampling Procedure : GL/EN/SOP/111

Test Completed on : 06 April 2023

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	21	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	16.5	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	123	mg/Nm ³	-
05	Temperature	IS 11255 (Part -3):2008	63	°c	-
06	Velocity	EPA Method 1-3	14.02	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	22291	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

-----End of Report-----
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TEST REPORT

ULR No : TC858223000002343F

Report No : EN23030079-12 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23030079-12 Sampling Date : 30 Mar 2023
Sample Identification : Cement mill Sample Received on : 02 April 2023
Sample Condition : Fit for Analysis Test Started on : 02 April 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	10.2	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	75	°c	-
06	Velocity	EPA Method 1-3	12.9	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	31448	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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TEST REPORT

ULR No : TC858223000002344F

Report No : EN23030079-13 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Stack Emission
Sample No : EN23030079-13 Sampling Date : 29 Mar 2023
Sample Identification : Packing plant Sample Received on : 02 April 2023
Sample Condition : Fit for Analysis Test Started on : 02 April 2023
Sampling Procedure : GL/EN/SOP/111 Test Completed on : 06 April 2023


Test result

S.No	Test Name	Test Method	Results	Units	Limit as per CPCB Standard
01	Carbon Monoxide as CO	GL/EN/SOP/149	BDL(DL:1.14)	mg/m ³	-
02	Particulate Matter	GL/EN/SOP/113	13.9	mg/Nm ³	30
03	Sulphur Dioxide as SO ₂	EPA Method 6	BDL(DL:3.0)	mg/m ³	-
04	Oxides Of Nitrogen as NO ₂	GL/EN/SOP/149	BDL(DL:2.0)	mg/m ³	-
05	Temperature	IS 11255 (Part -3):2008	34	°c	-
06	Velocity	EPA Method 1-3	11.39	m/s	-
07	Volume of gas discharged	IS 11255 (Part -3):2008	19720	Nm ³ /hr	-
08	Arsenic as As	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-
09	Mercury as Hg	EPA Method -29	BLQ(LOQ:0.03)	mg/m ³	-

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

.....End of Report.....
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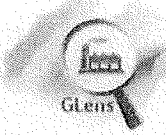

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TEST REPORT

ULR No : TC858222000008320F TO 8323F

Report No : EN22100046-22 to 25 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Work zone Noise Level Monitoring
 Sample No : EN22100046-22 to 25 Date of Measurement : 15 Oct 2022
 Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time	Day Limit
1	Near Cement mill Area	81.90	90 dB(A)
2	Near Raw mill Area	84.20	
3	Near coal mill Area	79.60	
4	Near lime stone primary crusher	85.90	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

End of Report

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TEST REPORT

ULR No : TC858222000008314F TO 8319F

Report No : EN22100046-16 to 21 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Ambient Noise Level Monitoring
Sample No : EN22100046-16 to 21 Date of Measurement : 15 Oct 2022
Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time	Day Limit
1	Lime stone stock yard at LSFM unit	60.20	75 dB(A)
2	Mr.P.Nachimuthu House Moorthipalayam	50.90	
3	Mr.K.Periyasamy House Thattampalayam	51.00	
4	Two wheeler parking area at LSFM Unit	56.90	
5	Mr. A.Sakthivel House Mollimangalam	50.70	
6	TNPL Water Reservoir BR -03	63.90	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

End of Report
Page 1 of 1


Authorized Signature
E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000010586F TO 0591F

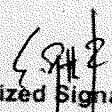
Report No : EN22120057-22 to 27 Report Date : 10 Jan 2023
 Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Ambient Noise Level Monitoring
 Sample No : EN22120057-22 to 27 Date of Measurement : 28 Dec 2022
 Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time Night Time	Day Limit
1	Lime stone stock yard at LSFM unit	61.8	75 dB(A)
2	Two wheeler parking area at LSFM Unit	57.0	
3	Mr. A.Sakthivel House Molimangalam	55.2	
4	TNPL Water Reservoir BR -03	64.6	
5	Mr.Nachimuthu House Moorthipaleam	58.2	
6	Mr.K.Periyasamy House Thattampalaem	56.4	

Note: The Noise Pollution (Regulation and Control) Rules,2000 were Published in the Gazette of India, Vide S.O.123(E),Dated 14.02.2000

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TEST REPORT

ULR No : TC858222000010592F TO 0595F

Report No : EN22120057-28 to 31 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Work zone Noise Level Monitoring

Sample No : EN22120057-28 to 31 Date of Measurement : 28 Dec 2022


Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time	Day Limit
1	Near Cement mill Area	80.60	90 dB(A)
2	Near Raw mill Area	83.20	
3	Near coal mill Area	78.0	
4	Near lime stone primary crusher	82.7	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

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TEST REPORT

ULR No : TC85822300000489F TO 0494F

Report No : EN23010038-15 TO 20 Report Date : 10 Feb 2023

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Ambient Noise Level Monitoring

Sample No : EN23010038-15 TO 20 Date of Measurement : 28 Jan 2023


Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leg dB(A)
		Day Time Night Time	Day Limit
1	Lime stone stock yard at LSFM unit	61.20	75 dB(A)
2	Two wheeler parking area at LSFM Unit	58.20	
3	Mr. A.Sakthivel House Molimangalam	57.60	
4	TNPL Water Reservoir BR -03	55.80	
5	Mr.Nachimuthu House Moorthipaleam	57.40	
6	Mr.K.Periyasamy House Thattampalaem	62.30	

Note: The Noise Pollution (Regulation and Control) Rules,2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

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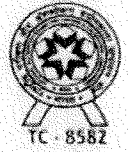
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TEST REPORT

ULR No : TC858223000000495F

Report No : EN23010038-21 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Work zone Noise Level Monitoring

Sample No : EN23010038-21

Date of Measurement : 28 Jan 2023


Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time	Day Limit
1	Near Cement mill Area	80.60	90 dB(A)

Note: The Noise Pollution (Regulation and Control) Rules,2000 were Published in the Gazette of India, Vide S.O.123(E),Dated 14.02.2000

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Page 1 of 1

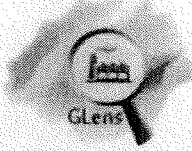

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TEST REPORT

ULR No : TC858223000001183F TO 1186F

Report No : EN23020058-21 to 24 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Work zone Noise Level Monitoring

Sample No : EN23020058-21 to 24 Date of Measurement : 21 Feb 2023

Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time	Day Limit
1	Near Cement mill Area	79.4	90 dB(A)
2	Near Raw mill Area	82.1	
3	Near coal mill Area	83.5	
4	Near lime stone primary crusher	72.1	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

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Page 1 of 1


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TC - 8582

TEST REPORT

ULR No : TC858223000001187F TO 1192F


Report No : EN23020058-25 to 30 Report Date : 06 Mar 2023
Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Description : Ambient Noise Level Monitoring
Sample No : EN23020058-25 to 30 Date of Measurement : 20 Feb 2023
Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time Night Time	Day Limit
1	Lime stone stock yard at LSFM unit	61.4	75 dB(A)
2	Two wheeler parking area at LSFM Unit	65.7	
3	Mr. A.Sakthivel House Molimangalam	52.1	
4	TNPL Water Reservoir BR -03	55.7	
5	Mr.Nachimuthu House Moorthipaleam	54.2	
6	Mr.K.Periyasamy House Thattampalaem	53.5	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

End of Report
Page 1 of 1

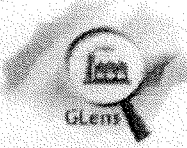

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TEST REPORT

ULR No : TC858223000002352F TO 2355F

Report No : EN23030079-20 to 23 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Description : Work zone Noise Level Monitoring

Sample No : EN23030079-20 to 23 Date of Measurement : 31 Mar 2023

Sampling Procedure : IS 9969:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time	Day Limit
1	Near Cement mill Area	80.1	90 dB(A)
2	Near Raw mill Area	83.4	
3	Near coal mill Area	81.6	
4	Near lime stone primary crusher	74.8	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

End of Report
Page 1 of 1

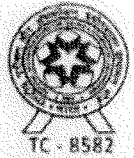

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LAB MANAGER

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TEST REPORT

ULR No : TC858223000002356F TO 2361F

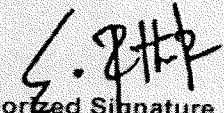
Report No : EN23030079-24 to 29 Report Date : 10 April 2023
 Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Description : Ambient Noise Level Monitoring
 Sample No : EN23030079-24 to 29 Date of Measurement : 31 Mar 2023
 Sampling Procedure : IS 9989:1981

Test Results

S.No	Sample Location	Noise Level dB(A)	CPCB Standards for Noise in Leq dB(A)
		Day Time Night Time	Day Limit
1	Lime stone stock yard at LSFM unit	59.6	75 dB(A)
2	Two wheeler parking area at LSFM Unit	63.8	
3	Mr. A.Sakthivel House Molimangalam	53.6	
4	TNPL Water Reservoir BR -03	56.8	
5	Mr.Nachimuthu House Moorthipaleam	55.3	
6	Mr.K.Periyasamy House Thattampalaem	54.5	

Note: The Noise Pollution (Regulation and Control) Rules, 2000 were Published in the Gazette of India, Vide S.O.123(E), Dated 14.02.2000

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TEST REPORT

ULR No : TC858222000008324F

Report No : EN22100046-26 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 14 Oct 2022

Sampling Location : Raw material storage area Sample Received on : 18 Oct 2022

Sample Code : EN22100046-26 Test Started on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Completed on : 27 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	17.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	250.40	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	12.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


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LAB MANAGER

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TEST REPORT

ULR No : TC850222000008325F

Report No : EN22100046-27 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 14 Oct 2022

Sampling Location : Lime stone crushing Area Sample Received on : 18 Oct 2022

Sample Code : EN22100046-27 Test Started on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Completed on : 27 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	14.20	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	295.40	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	10.50	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report

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TEST REPORT

ULR No : TC858222000008327F

Report No : EN22100046-29 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 14 Oct 2022

Sampling Location : Coal Handling Area Sample Received on : 18 Oct 2022

Sample Code : EN22100046-29 Test Started on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Completed on : 27 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6) : 2017	12.50	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	340.70	µg/m ³
4	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2017	8.70	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


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TC - 8582

TEST REPORT

ULR No : TC85822200000832BF

Report No : EN22100046-30 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 14 Oct 2022

Sampling Location : Ash Handling Area Sample Received on : 18 Oct 2022

Sample Code : EN22100046-30 Test Started on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Completed on : 27 Oct 2022

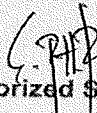
Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6) : 2017	17.20	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	190.90	µg/m ³
4	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2017	12.70	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature
E. PRITHVIRAJAN
LAB MANAGER

#6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600106.

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TEST REPORT

ULR No : TC858222000008326F

Report No : EN22100046-2B Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 14 Oct 2022

Sampling Location : Clinker cooler Area Sample Received on : 18 Oct 2022

Sample Code : EN22100046-2B Test Started on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Completed on : 27 Oct 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	14.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	300.10	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	11.70	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

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GLens Innovation Labs Pvt Ltd.

NABL ACCREDITED AS PER ISO/IEC 17025 : 2017, CERTIFIED AS PER ISO 9001:2015 & ISO 45001 : 2018



TEST REPORT

ULR No : TC858222000008329F

Report No : EN22100046-31 Report Date : 29 Oct 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 14 Oct 2022

Sampling Location : Additives Handling Area Sample Received on : 18 Oct 2022

Sample Code : EN22100046-31 Test Started on : 18 Oct 2022

Sample Condition : Fit for Analysis Test Completed on : 27 Oct 2022


Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	12.60	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	350.40	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	08.20	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report

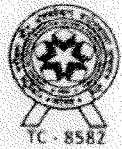

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 E. PRITHVIRAJAN
 LAB MANAGER

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TEST REPORT

ULR No : TC858222000010580F

Report No : EN22120057-16 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 28 Dec 2022

Sampling Location : Raw material storage area Sample Received on : 30 Dec 2022

Sample Code : EN22120057-16 Test Started on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	20.60	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	56.60	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	17.60	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

#6/1,1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600105.

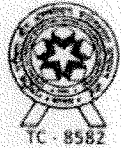
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TEST REPORT

ULR No : TC858222000010581F

Report No : EN22120057-17 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 28 Dec 2022

Sampling Location : Lime stone crushing Area Sample Received on : 30 Dec 2022

Sample Code : EN22120057-17 Test Started on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Completed on : 05 Jan 2023

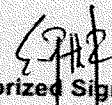
Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6): 2017	15.60	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	96	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	12.20	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000010582F

Report No : EN22120057-18 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 28 Dec 2022

Sampling Location : Clinker cooler Area Sample Received on : 30 Dec 2022

Sample Code : EN22120057-18 Test Started on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Completed on : 05 Jan 2023


Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6) : 2017	14.60	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	110.10	µg/m ³
4	Sulphur Dioxide as SO ₂	IS 5182 (Part 2) : 2017	11.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

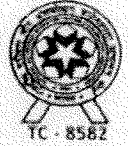
End of Report


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E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000010583F

Report No : EN22120057-19 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 28 Dec 2022

Sampling Location : Additives Handling Area Sample Received on : 30 Dec 2022

Sample Code : EN22120057-19 Test Started on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Completed on : 05 Jan 2023

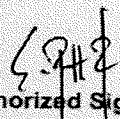
Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	18.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	79.0	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	16.10	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

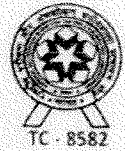
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TEST REPORT

ULR No : TC858222000010584F

Report No : EN22120057-20 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 28 Dec 2022

Sampling Location : Ash Handling Area Sample Received on : 30 Dec 2022

Sample Code : EN22120057-20 Test Started on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Completed on : 05 Jan 2023


Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	20.40	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	43.60	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	15.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

E. PRITHVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000010585F

Report No : EN22120057-21 Report Date : 10 Jan 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 28 Dec 2022

Sampling Location : Coal Handling Area Sample Received on : 30 Dec 2022

Sample Code : EN22120057-21 Test Started on : 30 Dec 2022

Sample Condition : Fit for Analysis Test Completed on : 05 Jan 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	14.20	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	92	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	11.60	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report

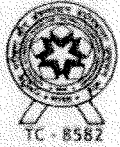
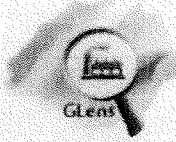

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LAB MANAGER

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TEST REPORT

ULR No : TC85822300000481F

Report No : EN23010038-07 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 27 Jan 2023

Sampling Location : Raw material storage area Sample Received on : 30 Jan 2023

Sample Code : EN23010038-07 Test Started on : 30 Jan 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Feb 2023

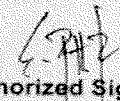
Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	19.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	68.50	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	15.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

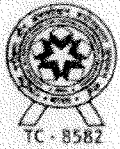
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LAB MANAGER

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TEST REPORT

ULR No : TC858223000000482F

Report No : EN23010038-08 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 27 Jan 2023

Sampling Location : Lime stone crushing Area Sample Received on : 30 Jan 2023

Sample Code : EN23010038-08 Test Started on : 30 Jan 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Feb 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	16.30	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	81.00	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	12.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report

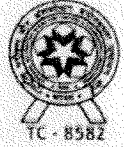
Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858223000000483F

Report No : EN23010038-09 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission

Sampling Date : 27 Jan 2023

Sampling Location : Clinker cooler Area

Sample Received on : 30 Jan 2023

Sample Code : EN23010038-09

Test Started on : 30 Jan 2023

Sample Condition : Fit for Analysis

Test Completed on : 06 Feb 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	15.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	56.0	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	11.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

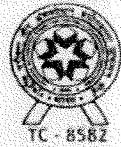
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TEST REPORT

ULR No : TC85822300000484F

Report No : EN23010038-10 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 27 Jan 2023

Sampling Location : Additives Handling Area Sample Received on : 30 Jan 2023

Sample Code : EN23010038-10 Test Started on : 30 Jan 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Feb 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO ₂	IS 5182 (Part 6) : 2017	18.40	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	56.40	µg/m ³
4	Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2017	11.90	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature

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TEST REPORT

ULR No : TC85822300000485F

Report No : EN23010038-11 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission

Sampling Date : 27 Jan 2023

Sampling Location : Ash Handling Area

Sample Received on : 30 Jan 2023

Sample Code : EN23010038-11

Test Started on : 30 Jan 2023

Sample Condition : Fit for Analysis

Test Completed on : 06 Feb 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6) : 2017	21.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	49.0	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	13.60	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report

Authorized Signature

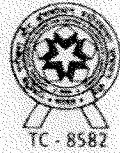
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LAB MANAGER

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TEST REPORT

ULR No : TC858223000000486F

Report No : EN23010038-12 Report Date : 10 Feb 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Name : Fugitive Emission Sampling Date : 27 Jan 2023
Sampling Location : Coal Handling Area Sample Received on : 30 Jan 2023
Sample Code : EN23010038-12 Test Started on : 30 Jan 2023
Sample Condition : Fit for Analysis Test Completed on : 06 Feb 2023


Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2	IS 5182 (Part 6): 2017	19.90	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	89.80	µg/m ³
4	Sulphur Dioxide as SO2	IS 5182 (Part 2): 2017	12.00	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

End of Report


Authorized Signature
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LAB MANAGER

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TEST REPORT

ULR No : TC858223000001177F

Report No : EN23020058-15 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 21 Feb 2023

Sampling Location : Raw material storage area Sample Received on : 24 Feb 2023

Sample Code : EN23020058-15 Test Started on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	17.4	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	90.8	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2) : 2017	16.4	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report

Authorized Signature

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LAB MANAGER

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TC - 8582

TEST REPORT

ULR No : TC858223000001178F

Report No : EN23020058-16 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 21 Feb 2023

Sampling Location : Lime stone crushing Area Sample Received on : 24 Feb 2023

Sample Code : EN23020058-16 Test Started on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Mar 2023

Test result

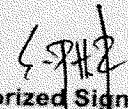
S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	20.9	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	74.3	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2) : 2017	19.0	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

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TEST REPORT

ULR No : TC858223000001179F

Report No : EN23020058-17 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 21 Feb 2023

Sampling Location : Clinker cooler Area Sample Received on : 24 Feb 2023

Sample Code : EN23020058-17 Test Started on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Mar 2023

Test result


S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	19.0	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	60.4	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2): 2017	13.9	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report

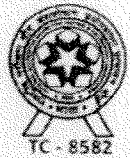

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TEST REPORT

ULR No : TC858223000001180F

Report No : EN23020058-18 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 21 Feb 2023

Sampling Location : Coal Handling Area Sample Received on : 24 Feb 2023

Sample Code : EN23020058-18 Test Started on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	22.3	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	101.4	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2) : 2017	18.3	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report


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LAB MANAGER

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TEST REPORT

ULR No : TC858223000001181F

Report No : EN23020058-19 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 21 Feb 2023

Sampling Location : Ash Handling Area Sample Received on : 24 Feb 2023

Sample Code : EN23020058-19 Test Started on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Mar 2023

Test result

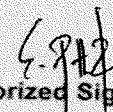
S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO ₂ *	IS 5182 (Part 6) : 2017	24.4	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	58.3	µg/m ³
4	Sulphur Dioxide as SO ₂ *	IS 5182 (Part 2) : 2017	14.7	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

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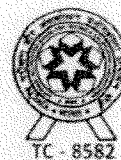
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TEST REPORT

ULR No : TC85B223000001182F

Report No : EN23020058-20 Report Date : 06 Mar 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 21 Feb 2023

Sampling Location : Additives Handling Area Sample Received on : 24 Feb 2023

Sample Code : EN23020058-20 Test Started on : 24 Feb 2023

Sample Condition : Fit for Analysis Test Completed on : 06 Mar 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	19.1	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	88.4	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2): 2017	17.2	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

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End of Report

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TEST REPORT

ULR No : TC858223000002346F

Report No : EN23030079-14 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : EN23030079-14 Report Date : 10 April 2023

Sampling Location : Raw material storage area Sample Received on : 02 April 2023

Sample Code : EN23030079-14 Test Started on : 02 April 2023

Sample Condition : Fit for Analysis Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6): 2017	18.0	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	104.8	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2): 2017	12.1	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report


Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

N6/1, 1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600106

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TEST REPORT

ULR No : TC858223000002347F

Report No : EN23030079-15 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 30 Mar 2023

Sampling Location : Lime stone crushing Area Sample Received on : 02 April 2023

Sample Code : EN23030079-15 Test Started on : 02 April 2023

Sample Condition : Fit for Analysis Test Completed on : 06 April 2023

Test result


S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	26.5	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	89.5	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2) : 2017	22.4	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report


Authorized Signature
E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858223000002348F

Report No : EN23030079-16 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission

Sampling Date : 30 Mar 2023

Sampling Location : Clinker cooler Area

Sample Received on : 02 April 2023

Sample Code : EN23030079-16

Test Started on : 02 April 2023

Sample Condition : Fit for Analysis

Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	17.0	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	58.9	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2) : 2017	13.3	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report


Authorized Signature
E. PRITHVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858223000002349F

Report No : EN23030079-17 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 30 Mar 2023

Sampling Location : Coal Handling Area Sample Received on : 02 April 2023

Sample Code : EN23030079-17 Test Started on : 02 April 2023

Sample Condition : Fit for Analysis Test Completed on : 06 April 2023

Test result

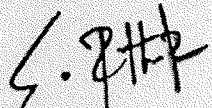
S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6): 2017	27.4	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	106.5	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2): 2017	24.5	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report

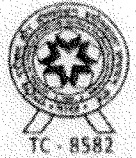

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 E. PRITHIVIRAJAN
 LAB MANAGER

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TEST REPORT

ULR No : TC858223000002350F

Report No : EN23030079-18 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 30 Mar 2023

Sampling Location : Ash Handling Area Sample Received on : 02 April 2023

Sample Code : EN23030079-18 Test Started on : 02 April 2023

Sample Condition : Fit for Analysis Test Completed on : 06 April 2023

Test result


S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	21.6	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	86.9	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2): 2017	19.5	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report


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E. PRITHVIRAJAN
LAB MANAGER

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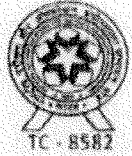
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TEST REPORT

ULR No : TC858223000002351F

Report No : EN23030079-19 Report Date : 10 April 2023

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Fugitive Emission Sampling Date : 30 Mar 2023

Sampling Location : Additives Handling Area Sample Received on : 02 April 2023

Sample Code : EN23030079-19 Test Started on : 02 April 2023

Sample Condition : Fit for Analysis Test Completed on : 06 April 2023

Test result

S.No	Test Name	Test Method	Results	Units
1	Carbon Monoxide as CO	NIOSH - 6604	BDL(DL:1.14)	mg/m ³
2	Oxides of Nitrogen as NO2*	IS 5182 (Part 6) : 2017	24.9	µg/m ³
3	Respirable Particulate Matter	NIOSH-0600	116.5	µg/m ³
4	Sulphur Dioxide as SO2*	IS 5182 (Part 2): 2017	22.9	µg/m ³
5	Lead as Pb	NIOSH - 7300	BLQ(LOQ:4.0)	µg/m ³

Note: BDL-Below Detection Limit, DL- Detection Limit

BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

* - Known as NON NABL PARAMETER

End of Report

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TEST REPORT

DLR No: TC858222000009440F

Report No : EN22110019-30 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Water

Sample Description : Ground Water

Sample No : EN22110019-30

Sampling Location : Raw water Cement plant

Sampling Date : 12 Nov 2022

Sample Condition : Fit for Analysis

Sample Received on : 14 Nov 2022

Sample Quantity : 2 Litre

Test Started on : 14 Nov 2022

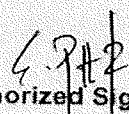
Sampling Plan & Method : GL/EN/SOP/001 & 003

Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	06	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	6.68	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	690	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	0.80	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	29	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	103	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.34	mg/L

Page 1 of 2


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TC - 8582

TEST REPORT

Report No : EN22110019-30

Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	0.06	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	33	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	53	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	167	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	206	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	41	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	20	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	02	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	05	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	4.4	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	1.53	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	02	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	7.6	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.060	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TC858222000009441F

Report No : EN22110019-31 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Name : Water
Sample Description : Ground Water
Sample No : EN22110019-31
Sampling Location : Raw water TNPL Paper plant Sampling Date : 12 Nov 2022
Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	06	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.92	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	320	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	0.7	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	45	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	64	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.7	mg/L

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E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

Report No : EN22110019-31 Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	0.08	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	24	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.01)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	15	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	99	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	211	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	44	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	24	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	08	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	08	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	3.8	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	3.27	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	05	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	10	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.043	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2

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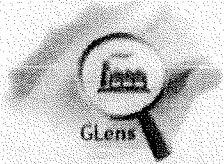
E. PRITHIVIRAJAN
LAB MANAGER

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TEST REPORT

ULR No : TCB58222000009442F

Report No : EN22110019-32 Report Date : 24 Nov 2022

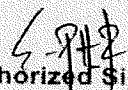
SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Water
 Sample Description : Ground Water
 Sample No : EN22110019-32
 Sampling Location : Velayadhapalayam Borewell Sampling Date : 12 Nov 2022
 Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
 Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
 Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	06	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.34	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	1015	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	0.70	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	79	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	281	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.30	mg/L

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TEST REPORT

Report No : EN22110019-32

Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	31	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	70	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	259	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	298	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.1)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	40	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	27	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	2	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	28	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	4.9	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	2.28	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	5	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.043	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2

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TEST REPORT

ULR No : TC858222000009443F

Report No : EN22110019-33 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Name : Water
Sample Description : Ground Water
Sample No : EN22110019-33
Sampling Location : Velur Borewell Sampling Date : 12 Nov 2022
Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	07	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.21	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	1015	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	0.7	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	79	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	281	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.64	mg/L


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TEST REPORT

Report No : EN22110019-33

Report Date

: 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	38	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	81	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	308	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	319	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	33	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	20	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	BDL(DL:1)	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	20	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	5.4	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	4.71	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	7	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.043	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....

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TEST REPORT

ULR No : TC858222000009444F

Report No : EN22110019-34 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Water
 Sample Description : Ground Water
 Sample No : EN22110019-34
 Sampling Location : Thottakurichi Borewell Sampling Date : 12 Nov 2022
 Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
 Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
 Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	05	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.12	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	785	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	Lessthan 0.1	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	70	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	265	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.6	mg/L

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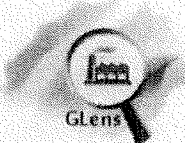
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TC - 8582

TEST REPORT

Report No : EN22110019-34

Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	38	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	66	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	312	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	419	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	21	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	12	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	3	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	28	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	3.8	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	4.6	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	12	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.040	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....

Page 2 of 2


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TEST REPORT

ULR No : TC858222000009445F

Report No : EN22110019-35 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kalthapuram, Karur - 639136.
 Sample Name : Water
 Sample Description : Ground Water
 Sample No : EN22110019-35
 Sampling Location : Thalavapalayam Borewell Sampling Date : 12 Nov 2022
 Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
 Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
 Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	Lessthan 0.1	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.18	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	985	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	Lessthan 0.1	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	84	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	237	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.25	mg/L

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TEST REPORT

Report No : EN22110019-35 Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	38	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	65	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	296	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	597	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	22	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	17	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	BDL(DL:1)	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	20	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	4	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	2.34	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	6	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.032	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2


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TEST REPORT

ULR No : TC858222000009446F

Report No : EN22110019-36 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Water
 Sample Description : Ground Water
 Sample No : EN22110019-36
 Sampling Location : Manmangalam Borewell Sampling Date : 12 Nov 2022
 Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
 Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
 Sampling Plan & Method : GI/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	Lessthan 0.1	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.23	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	841	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	Lessthan 0.1	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	55	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	235	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.83	mg/L


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TEST REPORT

Report No : EN22110019-36 Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	29	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	63	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	269	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	515	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	27	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	22	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	BDL(DL:1)	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	35	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	3.2	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	2.51	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	13	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.029	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2

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TEST REPORT

ULR No : TC858222000009447F

Report No : EN22110019-37 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Water
 Sample Description : Ground Water
 Sample No : EN22110019-37
 Sampling Location : Mangacholipalayam Borewell Sampling Date : 12 Nov 2022
 Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
 Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
 Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	Lessthan 0.1	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.29	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	765	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	Lessthan 0.1	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	58	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	217	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.91	mg/L

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LAB MANAGER

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TC - 8582

TEST REPORT

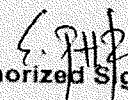
Report No : EN22110019-37

Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	31	mg/L
13	Phenolic Compound (as C ₆ H ₅ OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO ₄	IS 3025 (Part 24): 1986 RA : 2014	62	mg/L
15	Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 RA : 2014	339	mg/L
16	Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 RA : 2014	494	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	24	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	19	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	BDL(DL:1)	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	27	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	3.7	mg/L
23	Silica as SiO ₂	IS 3025 (Part 35): 1988 RA : 2014	3.72	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	08	mg/L
25	Nitrate Nitrogen as NO ₃	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.039	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2


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TEST REPORT

ULR No : TC858222000009448F

Report No : EN22110019-38 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
Customer Address : Kagithapuram, Karur - 639136.
Sample Name : Water
Sample Description : Ground Water
Sample No : EN22110019-38
Sampling Location : Punam Chathiram Borewell Sampling Date : 12 Nov 2022
Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	04	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.44	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	785	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	1.0	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	84	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	347	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.42	mg/L

Page 1 of 2

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TC - 8582

TEST REPORT

Report No : EN22110019-38 Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	0.09	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	32	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	76	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	167	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	365	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	19	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	19	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	11	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	31	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	5	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	5.86	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	11	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	5	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.049	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2

Authorized Signature

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TEST REPORT

GLR No. TC658222000009449F

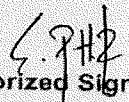
Report No : EN22110019-39 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)
 Customer Address : Kagithapuram, Karur - 639136.
 Sample Name : Water
 Sample Description : Ground Water
 Sample No : EN22110019-39
 Sampling Location : Kulathupalayam Borewell Sampling Date : 12 Nov 2022
 Sample Condition : Fit for Analysis Sample Received on : 14 Nov 2022
 Sample Quantity : 2 Litre Test Started on : 14 Nov 2022
 Sampling Plan & Method : GL/EN/SOP/001 & 003 Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Colour	IS 3025 (Part 4): 1983 RA : 2017	Lessthan 0.1	Hazen
2	Odour	IS 3025 (Part 5): 2018	Agreeable	No Unit
3	pH Value	IS 3025 (Part 11): 1983 RA : 2017	7.94	--
4	Taste	IS 3025 (Part 8): 1984 RA : 2017	Agreeable	No Unit
5	Total Dissolved Solids	IS 3025 (Part 16): 1984 RA : 2017	1720	mg/L
6	Turbidity	IS 3025 (Part 10): 1984 RA : 2017	Lesstha 0.1	NTU
7	Calcium as Ca	IS 3025 (Part 40): 1991 RA : 2014	124	mg/L
8	Chloride as Cl	IS 3025 (Part 32): 1988 RA : 2014	320	mg/L
9	Fluoride as F	IS 3025 (Part 60): 2008 RA : 2013	0.69	mg/L


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TEST REPORT

Report No : EN22110019-39 Report Date : 24 Nov 2022

S.No	Test Name	Test Method	Results	Units
10	Free Residual Chlorine	IS 3025 (Part 26): 1986 RA : 2014	BDL(DL:0.1)	mg/L
11	Iron as Fe	IS 3025 (Part 53): 2003 RA : 2014	BDL(DL:0.05)	mg/L
12	Magnesium as Mg	IS 3025 (Part 46): 1994 RA : 2014	52	mg/L
13	Phenolic Compound (as C6H5OH)	IS 3025 (Part 43): 1992 RA : 2014	BDL(DL:0.001)	mg/L
14	Sulphate as SO4	IS 3025 (Part 24): 1986 RA : 2014	145	mg/L
15	Total Alkalinity as CaCO3	IS 3025 (Part 23): 1986 RA : 2014	136	mg/L
16	Total Hardness as CaCO3	IS 3025 (Part 21): 2009 RA : 2014	470	mg/L
17	Cyanide as CN	IS 3025 (Part 27): 1986 RA : 2014	BDL(DL:0.01)	mg/L
18	Sodium as Na	APHA 23rd Edition Part 3500 - Na B : 2017	70	mg/L
19	Potassium as K	APHA 23rd Edition:3500 Ca B:2017	27	mg/L
20	Total Suspended Solids@ 105°C	APHA 23rd Edition Part 2540 D : 2017	08	mg/L
21	Chemical Oxygen Demand	APHA 23rd Edition Part 5220 B,C : 2017	28	mg/L
22	Dissolved Oxygen	APHA 23rd Edition Part 4500 O B: 2017	3	mg/L
23	Silica as SiO2	IS 3025 (Part 35): 1988 RA : 2014	9.86	mg/L
24	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 RA : 2014	10	mg/L
25	Nitrate Nitrogen as NO3	IS 3025 (Part 34): 1988 RA : 2014	BDL(DL:1)	mg/L
26	Total Chromium as Cr	IS 3025 (Part-65):2014	0.027	mg/L
27	Mercury as Hg	EPA Method 200.8	BLQ(LOQ:0.0005)	mg/L
28	Total Arsenic as As	IS 3025 (Part-65):2014	BLQ(LOQ:0.002)	mg/L

Note: BDL-Below Detection Limit, DL- Detection Limit

.....End of Report.....
Page 2 of 2

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ANNEXURE - 3

TNPL LSFM STACK DATA 01.03.2023 to 31.03.2023

	PM_RABH_S TACK	PM_ COOLER_ESP	PM_ COALMILL_ STACK	PM_ CEMENT_ STACK	PM_ PACKAGING_ STACK	RABH_STACK- Nox	RABH_STACK- SO2
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
01/03/2023	8.11	8.48	5.49	5.84	9.44	276.33	30.59
02/03/2023	7.75	8.60	5.95	3.74	8.68	260.81	29.12
03/03/2023	7.65	8.55	8.51	4.14	6.83	256.12	29.09
04/03/2023	7.85	8.27	8.68	4.39	7.49	284.33	21.2
05/03/2023	7.32	7.87	8.22	4.24	7.24	270.04	8.06
06/03/2023	7.13	7.75	10.44	5.19	7.90	299.7	5.76
07/03/2023	6.80	7.75	10.55	3.15	8.64	307.58	4.37
08/03/2023	7.13	7.93	10.56	5.11	8.62	282.79	2.36
09/03/2023	6.83	7.92	11.48	4.22	8.70	289.61	1.52
10/03/2023	7.49	7.79	12.45	4.19	9.41	314.49	0.67
11/03/2023	7.17	7.73	12.98	5.83	10.07	325.63	3.68
12/03/2023	7.28	7.82	13.33	3.66	10.45	331.17	5.08
13/03/2023	7.19	7.90	13.31	5.39	10.96	338.53	4.63
14/03/2023	6.74	7.90	13.10	3.32	11.44	338	4.18
15/03/2023	7.39	7.87	13.52	5.98	11.68	303.85	10.8
16/03/2023	8.05	7.73	13.55	4.80	12.32	341.84	21.96
17/03/2023	7.53	7.68	14.85	5.14	12.50	272.83	7.85
18/03/2023	7.70	7.54	15.50	6.38	12.85	292.96	6.11
19/03/2023	7.38	7.48	13.41	2.63	13.61	264.97	6.12
20/03/2023	6.53	7.65	12.60	2.86	13.88	277.68	6.02
21/03/2023	6.70	7.40	12.56	6.73	13.49	269.72	3.57
22/03/2023	6.89	7.28	13.42	5.27	13.66	266.49	5.07
23/03/2023	6.73	7.34	15.39	5.86	12.23	250.33	4.09
24/03/2023	7.39	8.31	16.10	4.22	13.52	248.48	0.55
25/03/2023	7.08	15.62	14.10	6.34	13.25	267.58	1.12
26/03/2023	6.13	10.23	3.16	2.97	13.12	125.26	11.88
27/03/2023	5.13	6.40	1.56	4.05	13.82	85.51	18.49
28/03/2023	4.62	8.22	1.50	6.57	13.33	87.51	18.99
29/03/2023	5.30	6.79	8.00	5.70	14.04	91.43	17.1
30/03/2023	6.53	6.72	5.78	6.22	13.73	210.96	13.28
31/03/2023	5.67	6.44	10.58	5.12	13.48	214.03	14.46
Min	4.62	6.40	1.50	2.63	6.83	85.51	0.55
Max	8.11	15.62	16.10	6.73	14.04	341.84	30.59
Avg	6.94	8.03	10.67	4.81	11.30	259.57	10.25

TNPL LSFM STACK DATA 01.02.2023 to 28.02.2023

	PM_RABH_S TACK	PM_ COOLER_ESP	PM_ COALMILL_ STACK	PM_ CEMENT_ STACK	PM_ PACKAGING_ STACK	RABH_ STACK-Nox	RABH_ STACK-SO2
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
01/02/2023	3.11	7.18	8.00	2.61	10.65	36.7	36.4
02/02/2023	4.47	13.49	8.52	2.54	10.54	279.3	35.3
03/02/2023	4.50	11.13	9.08	4.13	14.88	276.8	20.6
04/02/2023	4.12	11.16	9.73	5.60	16.93	309.1	22.5
05/02/2023	3.73	11.69	8.96	5.81	15.82	320.7	26.7
06/02/2023	6.47	11.04	9.16	4.84	15.66	327.1	26.7
07/02/2023	11.68	10.62	9.11	5.47	15.11	323.9	27
08/02/2023	11.60	10.69	9.33	3.68	15.53	176.8	26.7
09/02/2023	12.38	11.70	9.29	3.59	16.27	183.1	28.9
10/02/2023	12.39	11.29	9.45	4.75	14.54	310.8	32.3
11/02/2023	12.45	11.22	9.03	3.62	12.60	297.7	33.3
12/02/2023	12.06	10.70	8.48	5.37	11.41	314	32.6
13/02/2023	11.81	10.23	7.93	4.52	10.60	285.2	33.8
14/02/2023	11.99	11.05	7.88	3.83	11.31	255.7	29.8
15/02/2023	11.91	10.57	7.86	3.21	11.75	245.1	27.1
16/02/2023	12.17	10.36	8.56	2.17	11.68	287.9	26.4
17/02/2023	12.45	9.46	8.64	4.45	12.93	320.8	28.7
18/02/2023	12.22	9.22	8.81	5.79	12.67	304.6	31
19/02/2023	12.47	12.30	9.03	5.02	14.39	303.6	28.2
20/02/2023	12.77	19.87	8.99	4.24	14.87	280.9	28
21/02/2023	12.72	19.57	8.85	3.86	9.32	273.1	31.3
22/02/2023	10.77	9.20	6.20	2.91	6.24	145.8	41.1
23/02/2023	6.27	8.98	4.32	3.36	6.76	328	27
24/02/2023	7.94	8.24	5.40	4.92	14.84	323	26.9
25/02/2023	7.93	8.95	5.33	3.96	14.17	350.8	27.2
26/02/2023	8.09	9.08	5.28	2.93	16.35	329.5	25.8
27/02/2023	7.69	8.47	5.82	5.57	12.77	351.9	26.9
28/02/2023	7.96	8.07	5.71	4.70	11.45	326.3	28.6

Min 3.11 7.18 4.32 2.17 6.24 36.70 20.60

Max 12.77 19.87 9.73 5.81 16.93 351.90 41.10

Avg 9.50 10.91 7.96 4.19 12.93 281.01 29.17

TNPL LSFM STACK DATA 01.01.2023 to 31.01.2023

DATE	PM_CEMENT_STACK	PM_COALMILL_STACK	PM_COOLER_ESP	PM_PACKAGING_STACK	PM_RABH_STACK	SO2_RABH_STACK	NOX_RABH_STACK
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
01/01/2023	9.11	12.29	10.82	16.54	5.61	16.4	180.8
02/01/2023	5.43	12.47	10.72	17.26	6.81	20.1	198.1
03/01/2023	6.50	12.19	9.24	17.62	6.33	23.8	214.4
04/01/2023	4.28	10.00	8.58	12.08	5.07	25.5	203.8
05/01/2023	6.91	8.50	10.07	4.88	5.37	30.6	200.2
06/01/2023	7.00	9.49	10.75	4.06	5.36	28.4	197.7
07/01/2023	5.87	8.99	10.45	2.25	4.41	30.3	210.6
08/01/2023	4.25	9.34	11.17	3.11	4.88	34.3	208.9
09/01/2023	3.69	9.26	10.51	3.21	4.79	42.5	246.7
10/01/2023	9.84	9.31	10.72	1.87	4.69	33.5	247.8
11/01/2023	8.15	9.44	10.72	0.92	5.19	37.3	306.3
12/01/2023	11.20	9.53	11.72	1.45	6.31	39.5	302.9
13/01/2023	11.05	9.52	11.29	1.42	5.84	40.3	239.6
14/01/2023	6.05	10.03	10.91	2.51	4.96	27.7	210.1
15/01/2023	9.08	9.98	10.40	3.19	5.30	6.7	207.7
16/01/2023	8.93	9.89	10.55	3.22	4.98	7.6	201
17/01/2023	3.45	9.81	8.05	4.87	5.03	24	49.4
18/01/2023	3.61	8.45	6.83	12.29	4.77	30.2	0
19/01/2023	2.89	8.73	6.76	12.40	4.63	31.2	0
20/01/2023	3.25	8.75	7.33	14.28	4.18	33.4	0.3
21/01/2023	3.75	8.74	7.79	11.70	3.75	33.8	1.9
22/01/2023	2.65	8.46	7.36	9.45	4.46	39.3	9.7
23/01/2023	4.14	7.90	6.85	9.65	4.12	39.4	15.7
24/01/2023	2.44	7.51	6.77	9.96	5.21	48.8	45.7
25/01/2023	2.81	7.05	6.72	8.98	5.12	43.4	25.1
26/01/2023	2.92	7.02	7.06	10.18	4.36	41.2	13.9
27/01/2023	2.19	7.06	7.08	10.10	4.41	43	18.2
28/01/2023	2.66	6.32	6.86	9.64	4.05	46.2	23.5
29/01/2023	2.43	5.88	6.92	9.06	3.46	45.6	24.3
30/01/2023	3.84	6.73	7.01	11.11	4.18	41.7	20.2
31/01/2023	2.66	7.40	7.39	12.34	4.51	40.9	21
Min	2.19	5.88	6.72	0.92	3.46	6.70	0.00
Max	11.20	12.47	11.72	17.62	6.81	48.80	306.30
Avg	5.26	8.90	8.88	8.12	4.91	33.12	124.05

TNPL LSFM STACK DATA 1.12.2022 to 31.12.2022

DATE	PM_CEMENT_STACK	PM_COALMILL_STACK	PM_COOLER_ESP	PM_PACKAGING_STACK	PM_RABH_STACK	SO2_RABH_STACK	NOX_RABH_STACK
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
01/12/2022	5.75	12.21	10.42	14.15	10.13	278.1	23.2
02/12/2022	7.83	12.67	8.95	15.00	8.69	233.4	23.4
03/12/2022	7.32	13.72	9.83	15.67	9.54	247.3	14
04/12/2022	5.24	14.17	9.64	17.13	9.36	241.6	15
05/12/2022	3.26	14.50	9.65	16.54	9.37	255.6	20.7
06/12/2022	3.20	14.62	9.75	16.18	9.46	233.8	16.4
07/12/2022	4.53	14.69	10.13	16.36	9.85	205.6	28.3
08/12/2022	11.05	13.98	9.75	15.94	8.82	110.5	48.6
09/12/2022	10.46	13.13	7.37	17.05	11.03	135.3	43.5
10/12/2022	8.35	12.63	6.85	16.61	14.33	153.9	39
11/12/2022	10.25	11.66	8.02	17.36	7.89	107.9	47.5
12/12/2022	4.70	11.05	8.44	16.60	5.76	99.8	63.2
13/12/2022	3.91	11.08	8.07	18.13	6.86	87.3	54.6
14/12/2022	3.19	11.21	7.36	17.77	4.92	87.1	51.4
15/12/2022	4.26	11.01	7.14	16.16	4.31	104.6	62.3
16/12/2022	6.98	11.18	7.21	15.83	4.15	94.2	54.8
17/12/2022	8.15	12.02	7.26	14.71	3.94	107.7	51.5
18/12/2022	10.20	12.54	12.76	15.42	5.59	309.8	29.6
19/12/2022	6.70	12.97	10.78	15.17	5.56	294.1	40.6
20/12/2022	2.24	11.98	6.83	14.25	4.03	108.3	65.5
21/12/2022	8.26	11.91	7.21	15.06	4.81	73.6	53.2
22/12/2022	7.13	11.50	7.62	13.04	3.73	0.6	19.4
23/12/2022	6.04	12.67	11.45	12.73	5.26	161.6	11
24/12/2022	12.38	11.11	9.98	12.52	5.23	155.4	12.4
25/12/2022	13.67	10.65	8.92	14.74	5.87	179.3	10.3
26/12/2022	11.84	10.86	9.58	17.08	6.93	196.4	19.5
27/12/2022	9.93	10.77	9.12	17.33	6.50	212.8	26.1
28/12/2022	7.17	11.21	9.27	16.45	5.78	164.6	13.1
29/12/2022	8.36	11.67	10.31	16.24	6.11	164.8	9.9
30/12/2022	4.47	11.91	11.14	16.20	5.78	167.1	11.5
31/12/2022	10.77	12.19	11.26	16.35	5.55	178.5	15.1
Min	2.24	10.65	6.83	12.52	3.73	0.60	9.90
Max	13.67	14.69	12.76	18.13	14.33	309.80	65.50
Avg	7.34	12.24	9.10	15.80	6.94	166.15	32.08

TNPL LSFM STACK DATA 1.11.2022 to 30.11.2022

DATE	PM_CEMENT_STACK	PM_COALMILL_STACK	PM_COOLER_ESP	PM_PACKAGING_STACK	PM_RABH_STACK	SO2_RABH_STACK	NOX_RABH_STACK
	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
01/11/2022	3.48	21.02	11.07	15.92	9.60	287	16.4
02/11/2022	6.90	21.23	11.05	16.59	11.47	300.5	18.3
03/11/2022	9.62	21.56	10.67	16.93	9.35	265.7	20.3
04/11/2022	9.77	21.52	10.41	16.09	8.04	263.9	23
05/11/2022	12.05	21.48	10.20	16.15	8.13	284.3	23.8
06/11/2022	11.19	21.59	11.81	16.44	8.87	312.3	26.5
07/11/2022	9.32	21.57	10.81	16.50	7.52	288.4	28.8
08/11/2022	3.58	21.57	9.76	15.83	8.69	279.9	27.6
09/11/2022	9.74	21.58	8.98	17.52	8.18	217.3	37.6
10/11/2022	10.07	21.58	8.12	17.05	7.86	128.7	28.1
11/11/2022	11.33	21.48	13.84	16.56	13.71	31.9	18.6
12/11/2022	5.95	21.60	12.60	16.65	11.84	156.3	12.4
13/11/2022	5.02	21.56	5.77	16.37	7.68	0	26.9
14/11/2022	4.69	21.57	7.51	16.04	7.86	0.9	30.8
15/11/2022	5.66	21.59	7.74	17.35	1.12	1.2	31.3
16/11/2022	4.60	21.57	7.01	16.56	1.12	2.8	32.3
17/11/2022	5.45	21.58	6.30	16.52	1.12	5.9	34.9
18/11/2022	8.81	21.68	8.64	16.52	1.12	98.1	42.9
19/11/2022	4.45	21.72	10.35	16.36	3.74	201.4	16.9
20/11/2022	7.23	21.73	11.39	16.36	11.08	179.8	15.1
21/11/2022	5.93	21.72	9.69	16.14	9.41	177.1	18.4
22/11/2022	7.88	21.67	9.93	15.99	9.64	195.2	31.1
23/11/2022	6.23	18.44	10.33	7.57	10.04	199.2	48.4
24/11/2022	4.61	12.36	11.09	4.94	10.78	152.6	30.1
25/11/2022	3.67	10.32	10.71	9.08	10.42	151.3	6.1
26/11/2022	6.98	10.20	10.01	8.73	9.71	101.4	14.5
27/11/2022	9.13	10.38	9.47	11.69	9.17	161	10.4
28/11/2022	7.20	11.42	9.54	13.07	9.27	191.6	24.7
29/11/2022	9.89	11.39	10.28	13.64	9.99	176.1	27.7
30/11/2022	8.06	11.54	10.92	12.62	10.61	214.6	33.8
Min	3.48	10.20	5.77	4.94	1.12	0.00	6.10
Max	12.05	21.73	13.84	17.52	13.71	312.30	48.40
Avg	7.28	19.01	9.87	14.79	8.24	167.55	25.26

TNPL LSFM STACK DATA 1.10.2022 to 31.10.2022

DATE	PM_CEMENT_STACK	PM_COALMILL_STACK	PM_COOLER_ESP	PM_PACKAGING_STACK	PM_RABH_STACK	SO2_RABH_STACK	NOX_RABH_STACK
	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³
01/10/2022	6.91	22.56	9.96	14.15	8.36	271.1	10.3
02/10/2022	6.00	22.36	9.04	14.86	7.61	NA	NA
03/10/2022	4.30	22.43	9.18	16.65	7.94	255.1	18.5
04/10/2022	7.07	22.64	8.92	18.05	8.38	278	22.9
05/10/2022	4.53	22.64	11.34	18.63	8.10	299.4	24.1
06/10/2022	5.48	22.61	12.85	18.25	7.13	282.7	21.3
07/10/2022	5.64	22.59	12.53	18.21	7.38	257.8	26.8
08/10/2022	5.62	22.71	12.29	18.85	7.09	244.7	35.3
09/10/2022	6.70	22.76	13.89	16.26	9.06	340.5	27.3
10/10/2022	6.82	22.90	13.65	17.04	9.24	267.2	29.8
11/10/2022	6.84	23.27	15.04	16.90	10.06	313.9	33
12/10/2022	6.90	23.43	13.44	16.84	6.77	253.1	34.7
13/10/2022	6.75	23.38	13.31	15.90	7.73	237.7	35.5
14/10/2022	6.84	23.44	15.62	16.52	8.06	252.3	35.8
15/10/2022	7.81	22.96	13.66	15.98	7.70	235.5	37.4
16/10/2022	6.80	22.85	14.01	16.56	8.81	270.5	39.4
17/10/2022	5.71	23.22	13.82	16.83	8.45	312.7	41.2
18/10/2022	3.46	22.75	13.68	16.26	8.93	276	43.5
19/10/2022	3.73	22.99	14.55	16.58	9.46	245.5	44
20/10/2022	2.94	22.76	13.57	21.11	10.07	232.8	46.4
21/10/2022	5.70	22.70	13.39	22.64	10.54	266	16.7
22/10/2022	9.04	22.67	13.86	16.50	9.59	245.5	6.8
23/10/2022	12.66	22.46	11.75	16.07	8.44	163	18.2
24/10/2022	10.60	22.32	8.19	16.16	7.46	73	28.5
25/10/2022	3.67	22.34	8.18	17.67	5.97	77.5	30
26/10/2022	9.34	22.37	8.12	16.08	5.50	81.7	32.5
27/10/2022	12.31	22.35	9.85	17.89	5.91	84.3	33.6
28/10/2022	10.25	21.92	9.30	16.51	5.79	91	33.2
29/10/2022	7.36	21.31	11.13	17.12	9.32	220.7	18.8
30/10/2022	6.64	21.19	11.93	16.46	10.65	294.4	13.6
31/10/2022	3.77	21.08	11.16	16.17	9.55	292.9	15.2
Min	2.94	21.08	8.12	14.15	5.50	73.00	6.80
Max	12.66	23.44	15.62	22.64	10.65	340.50	46.40
Avg	6.72	22.58	11.97	17.09	8.23	233.88	28.48

TNPL LSFM CAAQMS DATA 1.3.2023 to 31.3.2023

DATE	PM10_CEMENT_	PM2.5_CEMENT_A	CO_CEMENT_A	NOX_CEMENT_A	SO2_CEMENT_
	AAQMS	AQMS	AQMS	AQMS	AAQMS
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
01/03/23	57.5	10.0	239.3	18.7	0.8
02/03/23	45.3	10.1	172.2	18.7	0.6
03/03/23	40.4	10.0	119.0	18.7	0.6
04/03/23	48.4	10.0	287.7	18.7	1.2
05/03/23	48.7	10.0	240.6	18.7	0.6
06/03/23	42.4	10.0	82.6	18.7	1.6
07/03/23	44.0	10.1	231.4	18.8	1.5
08/03/23	48.5	10.0	123.1	18.7	0.5
09/03/23	62.2	10.0	260.3	18.7	0.3
10/03/23	51.9	10.0	243.9	18.7	1.3
11/03/23	51.6	10.0	200.2	18.8	0.7
12/03/23	52.1	10.0	254.3	18.7	0.5
13/03/23	57.0	10.0	337.4	18.7	0.7
14/03/23	54.0	10.0	242.3	18.7	0.3
15/03/23	52.3	10.0	202.3	18.7	0.4
16/03/23	36.8	10.0	414.5	18.7	0.9
17/03/23	29.6	13.2	124.6	19.8	1.7
18/03/23	19.8	15.0	382.3	20.6	0.8
19/03/23	16.9	14.9	162.3	20.6	1.5
20/03/23	18.9	15.1	163.6	20.7	3.3
21/03/23	26.0	14.2	403.9	19.3	1.3
22/03/23	40.4	13.2	129.2	17.6	0.1
23/03/23	39.9	13.0	173.1	17.6	3.4
24/03/23	40.0	13.0	136.6	17.6	2.7
25/03/23	40.1	13.0	255.4	17.6	1.8
26/03/23	39.9	13.0	155.5	17.6	2.6
27/03/23	40.0	13.0	170.8	17.6	3.9
28/03/23	40.0	13.0	197.6	17.7	1.4
29/03/23	40.0	13.0	139.9	17.6	3.9
30/03/23	40.1	13.1	168.1	17.6	2.2
31/03/23	40.1	13.0	112.2	17.6	2.9
Min	16.9	10.0	82.6	17.6	0.1
Max	62.2	15.1	414.5	20.7	3.9
Avg	42.1	11.7	210.5	18.6	1.5

TNPL LSFM CAAQMS DATA 1.2.2023 to 28.2.2023

	PM10_CEMENT_ AAQMS	PM2.5_CEMENT _AAQMS	CO_CEMENT_A AQMS	NOX_CEMENT AAQMS	SO2_CEMENT_ AAQMS
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
01/02/2023	82.3	21.7	76.3	19.2	3.5
02/02/2023	80.8	16.2	208.0	17.3	0.8
03/02/2023	86.7	16.2	168.4	16.3	2.5
04/02/2023	76.9	17.2	97.4	17.3	0.8
05/02/2023	102.4	15.0	81.2	19.2	0.4
06/02/2023	93.9	12.4	94.5	17.3	1.9
07/02/2023	105.8	16.6	95.3	19.8	1.3
08/02/2023	109.1	17.4	264.9	20.2	2.5
09/02/2023	76.6	15.9	194.7	17.8	0.1
10/02/2023	65.4	18.0	166.7	18.6	1.6
11/02/2023	106.3	18.1	194.6	19.4	0.9
12/02/2023	110.4	17.9	98.5	19.4	0.9
13/02/2023	75.4	18.1	58.7	19.4	0.7
14/02/2023	46.8	18.0	115.8	19.4	1.2
15/02/2023	63.3	17.9	82.9	19.4	2.4
16/02/2023	56.0	18.1	95.1	19.4	2.4
17/02/2023	64.3	18.1	261.2	19.4	0.9
18/02/2023	37.0	15.0	49.7	20.2	0.5
19/02/2023	35.4	13.0	95.2	20.7	0.8
20/02/2023	38.9	13.0	155.3	20.7	1.3
21/02/2023	37.3	11.3	119.1	19.6	0.3
22/02/2023	60.3	10.0	32.8	18.8	0.1
23/02/2023	44.4	10.0	147.1	18.7	0.3
24/02/2023	34.7	10.0	154.2	18.7	0.8
25/02/2023	36.4	10.0	84.7	18.7	1.1
26/02/2023	43.3	10.0	138.0	18.7	2.8
27/02/2023	41.7	10.0	140.8	18.7	1.1
28/02/2023	48.9	10.0	192.3	18.7	0.5
Min	34.7	10.0	32.8	16.3	0.1
Max	110.4	21.7	264.9	20.7	3.5
Avg	66.5	14.8	130.8	19.0	1.2

TNPL LSFM CAAQMS DATA 1.1.2023 to 31.1.2023

DATE	PM10_ TNPL_ LSFM	PM2.5_ TNPL_ LSFM	SO2_ TNPL_ LSFM	NOX_ TNPL_ LSFM	CO_ TNPL_ LSFM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
01/01/2023	49.2	12.9	5.9	158.0	16.7
02/01/2023	45.0	17.0	7.0	277.8	17.5
03/01/2023	48.5	17.1	2.6	184.3	18.4
04/01/2023	49.2	13.9	8.1	235.2	18.7
05/01/2023	52.0	14.3	6.5	124.4	19.2
06/01/2023	52.6	15.9	6.5	345.9	20.0
07/01/2023	50.2	16.8	8.4	226.1	19.1
08/01/2023	56.9	15.0	8.4	86.9	18.7
09/01/2023	75.5	16.0	10.0	170.9	20.0
10/01/2023	77.1	13.7	8.9	244.1	19.3
11/01/2023	81.0	18.3	6.7	62.6	19.3
12/01/2023	71.7	15.5	11.2	280.5	18.9
13/01/2023	54.4	19.3	6.1	131.6	18.1
14/01/2023	49.5	18.4	4.6	125.5	13.1
15/01/2023	44.5	15.3	5.3	299.8	13.7
16/01/2023	42.1	17.1	5.3	184.8	18.1
17/01/2023	30.5	13.8	5.0	254.2	16.0
18/01/2023	33.8	15.7	4.1	128.0	18.0
19/01/2023	45.5	13.6	2.6	360.8	18.6
20/01/2023	48.5	13.0	0.1	318.4	17.0
21/01/2023	62.4	11.0	1.7	319.8	16.7
22/01/2023	53.2	12.0	0.2	372.1	16.6
23/01/2023	51.3	13.9	0.2	338.9	16.4
24/01/2023	30.8	11.3	2.3	173.8	17.3
25/01/2023	33.5	13.8	0.5	185.3	17.2
26/01/2023	48.9	18.0	0.7	290.5	16.7
27/01/2023	54.1	14.7	2.3	236.7	18.1
28/01/2023	42.4	18.5	0.4	370.4	18.8
29/01/2023	47.0	20.0	0.5	265.6	19.1
30/01/2023	57.1	16.3	1.5	222.2	18.1
31/01/2023	54.9	18.0	0.4	102.6	17.6
Min	30.5	11.0	0.1	62.6	13.1
Max	81.0	20.0	11.2	372.1	20.0
Avg	51.4	15.5	4.3	228.3	17.8

TNPL LSFM CAAQMS DATA 1.12.2022 to 31.12.2022

DATE	PM10_ TNPL_ LSFM	PM2.5_ TNPL_ LSFM	SO2_ TNPL_ LSFM	NOX_ TNPL_ LSFM	CO_ TNPL_ LSFM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
01/12/2022	58.6	15.0	4.4	288.8	17.5
02/12/2022	44.6	15.7	2.6	276.9	17.4
03/12/2022	46.2	15.2	3.5	292.8	18.4
04/12/2022	60.4	20.8	1.6	188.9	18.8
05/12/2022	52.9	14.9	1.8	213.8	20.6
06/12/2022	56.8	19.6	5.8	281.9	17.9
07/12/2022	71.6	13.5	4.0	247.6	16.9
08/12/2022	72.6	17.5	2.9	58.8	18.7
09/12/2022	52.1	16.2	6.4	174.8	18.3
10/12/2022	50.4	17.1	5.2	151.2	18.9
11/12/2022	46.1	14.0	4.0	235.9	18.2
12/12/2022	38.1	15.5	5.2	79.2	19.0
13/12/2022	38.2	13.1	1.6	290.5	17.8
14/12/2022	35.6	14.5	3.5	272.6	16.9
15/12/2022	39.0	18.7	7.7	139.9	18.1
16/12/2022	48.8	14.1	5.3	203.5	19.4
17/12/2022	58.6	15.1	4.7	141.6	19.7
18/12/2022	60.1	15.1	6.6	133.9	19.1
19/12/2022	54.7	17.3	7.5	263.7	17.2
20/12/2022	52.1	13.3	8.1	229.9	16.8
21/12/2022	60.1	16.6	3.9	94.5	19.4
22/12/2022	63.7	19.0	9.2	169.7	18.9
23/12/2022	82.5	17.4	6.9	93.8	19.2
24/12/2022	75.5	14.5	8.3	83.1	18.0
25/12/2022	38.1	12.0	5.0	97.0	17.1
26/12/2022	27.3	15.2	2.2	181.2	19.2
27/12/2022	35.8	17.0	4.2	193.3	19.5
28/12/2022	37.6	11.8	3.0	170.8	16.0
29/12/2022	40.0	17.6	2.5	273.6	16.5
30/12/2022	40.0	15.7	1.6	172.2	18.0
31/12/2022	45.5	14.8	6.1	188.0	17.5
Min	27.3	11.8	1.6	58.8	16.0
Max	82.5	20.8	9.2	292.8	20.6
Avg	51.1	15.7	4.7	189.8	18.2

TNPL LSFM CAAQMS DATA 1.11.2022 to 30.11.2022

DATE	PM10_ TNPL_ LSFM	PM2.5_ TNPL_ LSFM	SO2_ TNPL_ LSFM	NOX_ TNPL_ LSFM	CO_ TNPL_ LSFM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
01/11/2022	48.8	15.4	4.3	17.2	280.3
02/11/2022	38.2	12.3	0.9	17.4	117.3
03/11/2022	35.7	11.3	5.1	17.8	276.1
04/11/2022	37.7	13.7	3.6	17.1	218.6
05/11/2022	40.5	12.2	3.2	16.9	245.2
06/11/2022	55.3	16.4	2.8	15.1	206.7
07/11/2022	59.6	12.4	1.5	20.8	319.4
08/11/2022	49.2	16.6	1.2	18.3	207.3
09/11/2022	40.7	15.8	4.3	18.5	319.4
10/11/2022	47.1	15.4	4.0	17.5	152.0
11/11/2022	54.8	14.4	1.6	17.1	227.9
12/11/2022	48.8	13.9	1.5	15.9	292.6
13/11/2022	57.1	18.1	3.7	16.5	154.1
14/11/2022	54.6	15.3	3.5	17.1	286.8
15/11/2022	57.6	15.1	0.6	18.9	342.4
16/11/2022	62.6	17.4	2.8	21.8	299.4
17/11/2022	66.4	14.8	1.1	22.5	326.7
18/11/2022	60.3	17.7	2.6	19.1	375.4
19/11/2022	58.5	16.5	3.5	16.5	283.4
20/11/2022	51.9	11.9	2.3	16.4	286.3
21/11/2022	53.5	15.1	3.1	16.5	281.1
22/11/2022	41.7	18.5	6.3	17.6	259.8
23/11/2022	54.5	22.7	4.6	18.9	247.1
24/11/2022	46.8	15.6	4.6	18.6	243.0
25/11/2022	42.4	14.1	2.4	19.5	276.7
26/11/2022	48.9	16.5	2.7	19.2	290.2
27/11/2022	52.3	15.5	0.2	16.3	309.0
28/11/2022	51.9	19.4	4.7	18.1	202.6
29/11/2022	63.8	17.0	2.5	19.4	236.6
30/11/2022	51.0	13.0	1.7	17.7	312.6
Min	35.7	11.3	0.2	15.1	117.3
Max	66.4	22.7	6.3	22.5	375.4
Avg	51.1	15.5	2.9	18.0	262.5

TNPL LSFM CAAQMS DATA 1.10.2022 to 31.10.2022

DATE	PM10_ TNPL_ LSFM	PM2.5_ TNPL_ LSFM	SO2_ TNPL_ LSFM	NOX_ TNPL_ LSFM	CO_ TNPL_ LSFM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
01/10/2022	56.0	24.4	1.8	18.7	178.7
02/10/2022	53.0	34.0	1.5	18.2	168.3
03/10/2022	44.7	21.9	0.2	17.9	115.9
04/10/2022	41.8	14.9	0.6	18.4	162.3
05/10/2022	54.1	14.1	1.3	22.6	315.3
06/10/2022	50.7	19.2	1.4	19.1	171.7
07/10/2022	51.2	14.7	0.8	18.0	395.0
08/10/2022	53.0	17.6	0.4	18.1	287.2
09/10/2022	52.9	14.7	0.3	18.4	130.8
10/10/2022	46.5	18.6	4.3	16.4	183.1
11/10/2022	56.6	14.3	0.2	19.4	97.1
12/10/2022	56.8	12.6	1.1	19.2	230.2
13/10/2022	40.0	13.6	0.8	19.0	165.9
14/10/2022	39.8	15.1	3.7	19.1	174.2
15/10/2022	40.5	20.8	1.0	17.1	174.0
16/10/2022	36.9	24.0	0.5	18.1	242.5
17/10/2022	37.7	15.1	1.4	22.0	280.1
18/10/2022	37.8	12.3	4.4	21.0	359.8
19/10/2022	41.2	15.3	3.2	19.4	147.2
20/10/2022	42.8	16.4	3.5	17.2	355.9
21/10/2022	39.8	17.0	0.3	17.9	249.0
22/10/2022	50.3	21.2	2.4	18.5	204.5
23/10/2022	64.0	19.0	0.7	20.1	291.6
24/10/2022	84.3	27.0	0.3	25.0	103.7
25/10/2022	75.1	23.8	1.0	20.6	171.8
26/10/2022	63.0	19.0	7.6	17.9	57.6
27/10/2022	45.2	19.1	3.7	17.0	98.0
28/10/2022	42.0	18.0	1.8	17.2	217.6
29/10/2022	53.7	18.2	5.5	18.8	394.8
30/10/2022	63.1	21.1	1.7	20.4	141.1
31/10/2022	64.3	24.0	6.6	17.8	341.5
Min	36.9	12.3	0.2	16.4	57.6
Max	84.3	34.0	7.6	25.0	395.0
Avg	50.9	18.7	2.1	19.0	213.1

Calibration Certificate for D-R 290

REV:CALIBDR290-201901-001

	Calibration Date	07-June-22	
Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR		
Instrument location	Cement mill Stack Dust Monitor		
TAG Number	621SK1A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RI	D-R 290 AW2
Serial Number	1230889	1221566	1227075
Calibration Path length		1384 mm	

Calibration details			
S.no	Parameter	Amplification factor	LED Pulse
1	LED INT. Calib.	# 47	2027
2	ZERO INT. Calib.	# 61	2027
3	SPAN Calib.	# 23	2027
4	ZERO EXT. Calib.	# 21	2027

Check cycle and output readings after Clear path calibration		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	-0.1% 3.98 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.8% 15.48 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Check cycle and output readings after OFFSET calibration.		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	0.1% 4.01 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.6% 15.46 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Note: Next Calibration Due Either by 06.06.2023 or on Replacement of Either Light source or Main PCB in Measuring Head of dust monitor.

For DURAG INDIA Instrumentation Private Limited

Authorize Signature 

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 29020111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

DR 290 PARAMETERS

Customer	M/s TNPL LSM CEMENT PLANT, PUGALUR		
Instrument location	Cement mill Stack Dust Monitor		
TAG Number	621SK1A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RI	D-R 290 AW2
Serial Number	1230889	1221566	1227075
Calibration Path length			1384 mm
Dust constant(b-factor)			241
Optical density range			0 to 0.6
Instrument range			0 to 145 mg/Nm ³ .

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

Calibration Certificate for D-R 290

REV:CALIBDR290-201901-001

	Calibration Date	08-June-22
Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR	
Instrument location	Coal mill Stack Dust Monitor	
TAG Number	511SK1A01	
Device	Measuring Head	Reflector Control Unit
Model Number	D-R 290 MK	D-R 290 RI D-R 290 AW2
Serial Number	1226243	1225566 1227069
Calibration Path length		1185 mm


Calibration details			
S.no	Parameter	Amplification factor	LED Pulse
1	LED INT. Calib.	# 109	2202
2	ZERO INT. Calib.	# 154	2202
3	SPAN Calib.	# 62	2202
4	ZERO EXT. Calib.	# 39	2202

Check cycle and output readings after Clear path calibration		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	-0.1% 3.98 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.8% 15.48 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Check cycle and output readings after OFFSET calibration.		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	0.1% 4.01 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.6% 15.46 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Note: Next Calibration Due Either by 07.06.2023 or on Replacement of Either Light source or Main PCB in Measuring Head of dust monitor.

For DURAG INDIA Instrumentation Private Limited


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DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

DR 290 PARAMETERS

Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR		
Instrument location	Coal mill Stack Dust Monitor		
TAG Number	511SK1A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RI	D-R 290 AW2
Serial Number	1226243	1225566	1227069
Calibration Path length			1185 mm
Dust constant(b-factor)			1400
Optical density range			0 to 0.4
Instrument range			0 to 560 mg/Nm3.

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

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PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

Calibration Certificate for D-R 290

REV:CALIBDR290-201901-001

	Calibration Date	06-June-22	
Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR		
Instrument location	Cooler ESP Stack Dust Monitor		
TAG Number	421SK2A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RII	D-R 290 AW2
Serial Number	1226242	1225557	1227382
Calibration Path length		2107 mm	

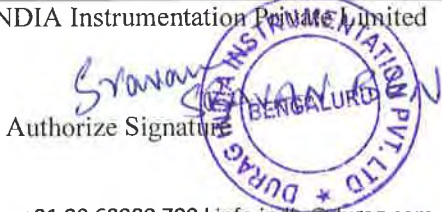
Calibration details			
S.no	Parameter	Amplification factor	LED Pulse
1	LED INT. Calib.	# 95	669
2	ZERO INT. Calib.	# 125	669
3	SPAN Calib.	# 49	669
4	ZERO EXT. Calib.	# 33	669

Check cycle and output readings after Clear path calibration		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	-0.1% 3.98 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.8% 15.48 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Check cycle and output readings after OFFSET calibration.		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	0.1% 4.01 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.6% 15.46 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Note: Next Calibration Due Either by 05.06.2023 or on Replacement of Either Light source or Main PCB in Measuring Head of dust monitor.

For DURAG INDIA Instrumentation Private Limited


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DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

DR 290 PARAMETERS

Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR		
Instrument location	Cooler ESP Stack Dust Monitor		
TAG Number	421SK2A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RII	D-R 290 AW2
Serial Number	1226242	1225557	1227382
Calibration Path length			2107 mm
Dust constant(b-factor)			155
Optical density range			0 to 0.8
Instrument range			0 to 124 mg/Nm3.

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

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PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

Calibration Certificate for D-R 290

REV-CALIBDR290-201901-001

	Calibration Date	07-June-22
Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR	
Instrument location	Packing Plant Stack Dust Monitor	
TAG Number	631SK1A01	
Device	Measuring Head	Reflector Control Unit
Model Number	D-R 290 MK	D-R 290 RI D-R 290 AW2
Serial Number	1235258	1230844 1230921
Calibration Path length		1130 mm

Calibration details			
S.no	Parameter	Amplification factor	LED Pulse
1	LED INT. Calib.	# 99	854
2	ZERO INT. Calib.	# 227	854
3	SPAN Calib.	# 90	854
4	ZERO EXT. Calib.	# 45	854

Check cycle and output readings after Clear path calibration		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	-0.1% 3.98 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.8% 15.48 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Check cycle and output readings after OFFSET calibration.		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	0.1% 4.01 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.6% 15.46 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Note: Next Calibration Due Either by 06.06.2023 or on Replacement of Either Light source or Main PCB in Measuring Head of dust monitor.

For DURAG INDIA Instrumentation Private Limited


 Authorize Signature

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT
 Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006
 Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

DR 290 PARAMETERS

Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR		
Instrument location	Packing Plant Stack Dust Monitor		
TAG Number	631SK1A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RI	D-R 290 AW2
Serial Number	1235258	1230844	1230921
Calibration Path length			1130 mm
Dust constant(b-factor)			1333
Optical density range			0 to 0.4
Instrument range			0 to 533 mg/Nm3.

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

Calibration Certificate for D-R 290

REV:CALIBDR290-201901-001

	Calibration Date			06-June-22
Customer	M/s TNPL LSM CEMENT PLANT, PUGALUR			
Instrument location	RABH Dust Monitor			
TAG Number	421SK1A01			
Device	Measuring Head	Reflector	Control Unit	
Model Number	D-R 290 MK	D-R 290 RII	D-R 290 AW2	
Serial Number	1226241	1226272	1227381	
Calibration Path length		3105 mm		

Calibration details			
S.no	Parameter	Amplification factor	LED Pulse
1	LED INT. Calib.	# 123	620
2	ZERO INT. Calib.	# 159	620
3	SPAN Calib.	# 58	620
4	ZERO EXT. Calib.	# 55	620

Check cycle and output readings after Clear path calibration		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	-0.1% 3.98 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.8% 15.48 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	-0.000 3.99 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Check cycle and output readings after OFFSET calibration.		
Parameter	Signal	Tolerance
Zero point check	0.0% 4.00 mA	0.0% ↔ 4.00 mA
Window Check	0.1% 4.01 mA	0.0 to 0.2% ↔ 4.00 mA to 4.03 mA
Span Check	71.6% 15.46 mA	71.1 to 71.9% ↔ 15.41 mA to 15.49 mA
Output (OP)		
Optical density(OP1)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA
Optical density(OP2)	0.002 4.02 mA	0.00 to 0.02 ↔ 4.00 mA to 4.03 mA

Note: Next Calibration Due Either by 05.06.2023 or on Replacement of Either Light source or Main PCB in Measuring Head of dust monitor.

For DURAG INDIA Instrumentation Private Limited


 Authorize Signature

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

PAN: AACCD3792R | CIN:U33130KA2006PTCO39133 | MSMED Reg No: 290201111591 | GSTIN Reg No: 29AACCD3792R1ZT

Commissionerate: Bengaluru-North West | Div: North West Div-1, Range:BNWD1

Bank details: ICICI Bank Limited | Rajajinagar Branch, Bengaluru | Current a/c: 029605004006

Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

DR 290 PARAMETERS

Customer	M/s TNPL LSFM CEMENT PLANT, PUGALUR		
Instrument location	RABH Dust Monitor		
TAG Number	421SK1A01		
Device	Measuring Head	Reflector	Control Unit
Model Number	D-R 290 MK	D-R 290 RII	D-R 290 AW2
Serial Number	1226241	1226272	1227381
Calibration Path length			3105 mm
Dust constant(b-factor)			163
Optical density range			0 to 1.0
Instrument range			0 to 163 mg/Nm3.

DURAG INDIA INSTRUMENTATION PRIVATE LIMITED

28-B/1, K.I.A.D.B, Peenya 1st Stage | Peenya, Bengaluru 560 058 | Karnataka, India | Phone +91 80 68980 700 | info.india@durag.com

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Bank Code/MICR: 560229023 | SWIFT: ICICINBBCTS | RTGS/NEFT/IFSC:ICIC0000296

CALIBRATION REPORT FOR MIR 9000

Ref: TNPL/ESA/22-23/CAL-02

Date: 02.09.2022

Customer : M/s TNPL LSFM Cement Plant, Karur
Analyser : SOx NOx Gas Analyser
Model No : ESA MIR 9000
Serial No : 2583
Location : Raw mill / RABH stack

Calibration details:

Measuring Parameters	Calibration Value					
	Zero Provision	Before Cal	After Cal	Span Value	Before Cal	After Cal
SOx	External Air	0.12	0.00	50 ppm	51.8	50.0
NO	External Air	0.06	0.00	150 ppm	151.3	150.0

Maintenance : Sample Line Head and Sampling Tube Cleaned
Over all Status : Found ok
Remark : Nil
Next Cal. Due : Dec 2022

D. Guler
For Environnement-SA India (P) Ltd,



ANNEXURE - 4

TNPCB Report of Analysis of STP Outlet for the period Oct'22 to Mar'23									
SL NO	PARAMETERS	Unit of measurement	Tolerance Limits	Date of Sample collection					
				20.10.2022	24.11.2022	28.12.2022	25.01.2023	22.02.2023	22.03.2023
1	pH	Number	5.5 - 9.0	7.36	7.25	7.23	6.82	7.27	Awaited
2	Total Suspended Solids	mg/L	Max 30	12	12	08	08	08	Awaited
3	BOD 3 days at 27°C	mg/L	max 20	09	08	11	08	08	Awaited
4	Chemical Oxygen Demand	mg/L		72	64	88	64	64	Awaited
5	Ammonical Nitrogen (as N)	mg/L		<5.0	<5.0	<5.0	<5.0	<5.0	Awaited
6	Total Nitrogen (as N)	mg/L		0.75	0.78	1.44	0.76	1.30	Awaited
7	Fecal Coliform	mg/L		-	-	-	-	-	Awaited

RAIN WATER HARVESTING

MARKETING OFFICE



ADMINISTRATIVE OFFICE



TIME OFFICE & CANTEEN



CCR BUILDING





Glens Innovation Labs Pvt Ltd.

NABL ACCREDITED AS PER ISO/IEC 17025 : 2017, CERTIFIED AS PER ISO 9001:2015 & ISO 45001 : 2018

TEST REPORT

Report No : EN22110019-40 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Coal

Sample Description : Coal

Sample No : EN22110019-40

Sampling Location : Coal Yard

Sample Condition : Fit for Analysis

Sample Quantity : 2 KG

Sampling Date : 12 Nov 2022

Sample Received on : 14 Nov 2022

Test Started on : 14 Nov 2022

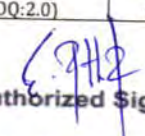
Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Ash Content	ASTM D 3174 -12	18.01	%
2	GCV	ASTM D 5865 - 13	4372	Kcal/kg
3	Volatile Matter	ASTMD 3175-17	34.28	%
4	Inherent Moisture	ASTM D 3173 M -17	8.16	%
5	Fluoride as F	EPA 9214	0.16	mg/kg
6	Chloride as Cl	GL/EN/SOP/097 :2019	7148	mg/kg
7	Total Moisture	IS 2720 (Part 02)	14.59	%
8	Sulphur as S	GL/EN/SOP/127	1.12	%
9	Chromium as Cr	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
10	Cadmium as Cd	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
11	Lead as Pb	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
12	Zinc as Zn	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
13	Copper as Cu	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
14	Mercury as Hg	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
15	Iron as Fe	GL/EN-INS/SOP/21	1044	mg/kg
16	Selenium as Se	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
17	Antimony as Sb	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
18	Arsenic as As	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
19	Nickel as Ni	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
20	Vanadium as V	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
21	Manganese as Mn	GL/EN-INS/SOP/21	6.08	mg/kg
22	Tin as Sn	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
23	Cobalt as Co	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg
24	Thallium Tl	GL/EN-INS/SOP/21	BLQ(LOQ:2.0)	mg/kg

Note: BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

Page 1 of 2
.....End of Report.....
Page 2 of 2


Authorized Signature

E. PRITHVIRAJAN
LAB MANAGER

#6/1,1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar, Arumbakkam, Chennai - 600106.

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GLens Innovation Labs Pvt Ltd.

NABL ACCREDITED AS PER ISO/IEC 17025 : 2017, CERTIFIED AS PER ISO 9001:2015 & ISO 45001 : 2018

TEST REPORT

Report No : EN22110019-41 Report Date : 24 Nov 2022

SAMPLE DRAWN BY LABORATORY

Customer Name : M/S. TNPL-CEMENT PLANT (LSFM)

Customer Address : Kagithapuram, Karur - 639136.

Sample Name : Coal

Sample Description : Coal

Sample No : EN22110019-41

Sampling Location : Coal Yard

Sample Condition : Fit for Analysis

Sample Quantity : 2 KG

Sampling Date : 12 Nov 2022

Sample Received on : 14 Nov 2022

Test Started on : 14 Nov 2022

Test Completed on : 22 Nov 2022

Test result

S.No	Test Name	Test Method	Results	Units
1	Uranium as U	GL/EN-INS/SOP/21	BLQ(LOQ:1.0)	mg/kg

Note: - BLQ-Below Limit of Quantification, LOQ-Limit of Quantification

Page 1 of 2

.....End of Report.....

Page 2 of 2

Authorized Signature

E. PRITHIVIRAJAN
LAB MANAGER

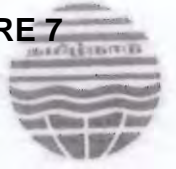
#6/1,1st Floor, Sri Jothi Complex, Murugesan Street, Balavinayagar Nagar,Arumbakkam, Chennai - 600106.

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TAMILNADU POLLUTION CONTROL BOARD



From
The Member Secretary
Tamil Nadu Pollution Control
Board,
76, Mount Salai, Guindy,
Chennai - 600 032.

To

The Additional Chief Secretary
to Government
Environment & Forests (EC.3)
Department, Secretariat,
Chennai - 600 009

Letter. No. T2/TNPCB/F.19737/LAW/2020, Dated: 22.1.2021

Sir,

Sub: TNPCB - Industries - M/s TNPL - Co processing of Hazardous waste/CETP sludge generated by other nearby operating units/municipalities in the cement kiln- exemption & time line for implementation of Alternate fuel firing system upto 2022- remarks - submitted - Reg

Ref: 1. Lr.No. 578/EC.2/2021-1 Dt. 18.1.2021 received from E&F department

I invite your kind attention to the references 1st cited wherein Govt vide letter Dt. 18.1.2021 enclosed the D.O lr received from Industries Department bearing the following representation from TNPL Cement plant and requested to furnish comments on the same.

1. To exempt co processing of Hazardous wastes/CETP sludge generated by other nearby operating units/municipalities in the Cement Kiln, as TNPL mini Cement plant is already co processing Hazardous Waste like lime sludge and lime grits generated from paper and Board plants at about 25% of its feed stock in the kiln against 1.0 to 1.5% being co processed by other Cement Industries.


2. To extend the time lines for implementation of the Alternate fuel firing system upto 2022 (Since TNPL is implementing the on - going major mill expansion activities in TNPL unit - II at a capital outlay of Rs 1100Cr & proposes to implement the Alternate fuel firing system in the year 2022) so as to fire plastic waste generated from paper and Board plant and to achieve desired Thermal Substitution Ratio (TSR), if it is mandatory & compulsory.

In this regard following details are submitted.

The unit of M/s. Tamil Nadu News Print and Papers Ltd - Mini Cement Plant, is an existing Cement plant functioning in S.F.No. 841, 842 etc of Punjai Pugalur south Village, Pugalur Taluk, Karur District has obtained consent for the production of OPC & PPC 0.33 MTPA and subsequently renewed vide Board Proc. No. T9/TNPCB/F.0063KAR/RL/KAR/W&A/2017/Dt 13.04.2017 with validity up to 31.03.2022.

Now the unit of M/s TNPL - mini Cement plant has applied for HWA for co processing of "Spent chemicals" such as Lime grit & lime sludge generated from TNPL main plant and to collect Chemical sludge generated from waste water treatment of CETP Karur is under process.

Under the above circumstance it is decided to exempt the unit of M/s TNPL -mini Cement Plant from Co processing of Hazardous wastes/CETP sludge generated by other nearby operating units/municipalities. Further as per the unit's request and since the unit is implementing the ongoing major mill expansion activities in TNPL unit - II at a capital outlay of Rs 1100Cr, the Board permits the unit to achieve target of TSR 10% in the year of 2022.


For member Secretary

GREEN BELT DEVELOPMENT AT TNPL - 2022-23

ABSTRACT

SL. NO	LOCATION	TOTAL AREA. IN HA	AREA TO BE COVERED UNDER GREEN COVER (33%) IN HA	GREEN COVER DEVELOPED IN HA	NO. OF TREES DEVELOPED	% OF GREEN BELT VS TOTAL AREA
1	MAIN PLANT	83.56	27.57 (33%)	32.11	103304	38.42%
2	CAPTIVE POWER PLANT	38.16	12.59(33%)	16.17	45503	42.37%
3	CEMENT PLANT	18.33	6.04(33%)	8.74	22078	47.68%
	TOTAL	140.05	46.20 (33%)	57.02	170885	40.71%

CEMENT PLANT

SL.NO	Name of the Tree	No.of Trees
1	Delonix regia (Gulmohar)	50
2	Peltophorum ferrugineum(Copper pod tree)	1960
3	Bahinia purpurea (Orchid tree)	185
4	Alstonia scholaris (Devil's tree)	41
5	Spathodea companulata (African tulip tree)	18
6	Wodetiya bifurca (Fox tail palm)	62
7	Oryodoxa regia (Royal palm)	10
8	Triangular palm	6
9	Azardirecta indica (Neem)	1158
10	Pongamia pinnata (Pungam)	149
11	Millingtonia hortensis (Tree jasmine)	240
12	Lagerstromia speciosa (Pride of India)	57
13	Cordea sebastena	10
14	Mimusops elengi (Makilam)	13
15	Ficus religiosa (Peepal)	2
16	Cassia fistula	5
17	Cassia siamea	127
18	Cassia nodosa	5
19	Casurina equisetifolia	14960
20	Dalbergia sisso	820
21	Eucalyptus sps	2200
	Total	22078



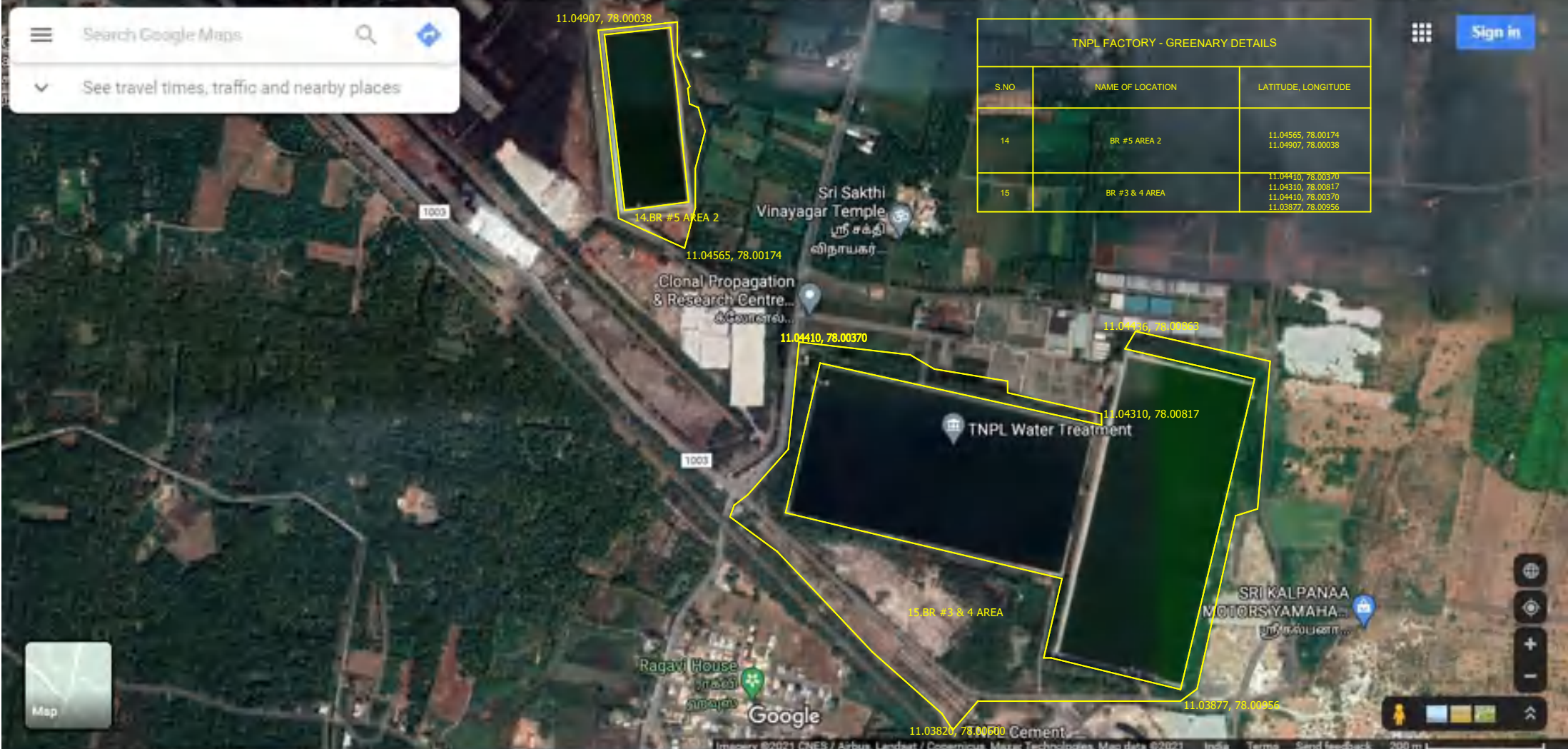
TNPL MINI CEMENT PLANT - GREENARY DETAILS

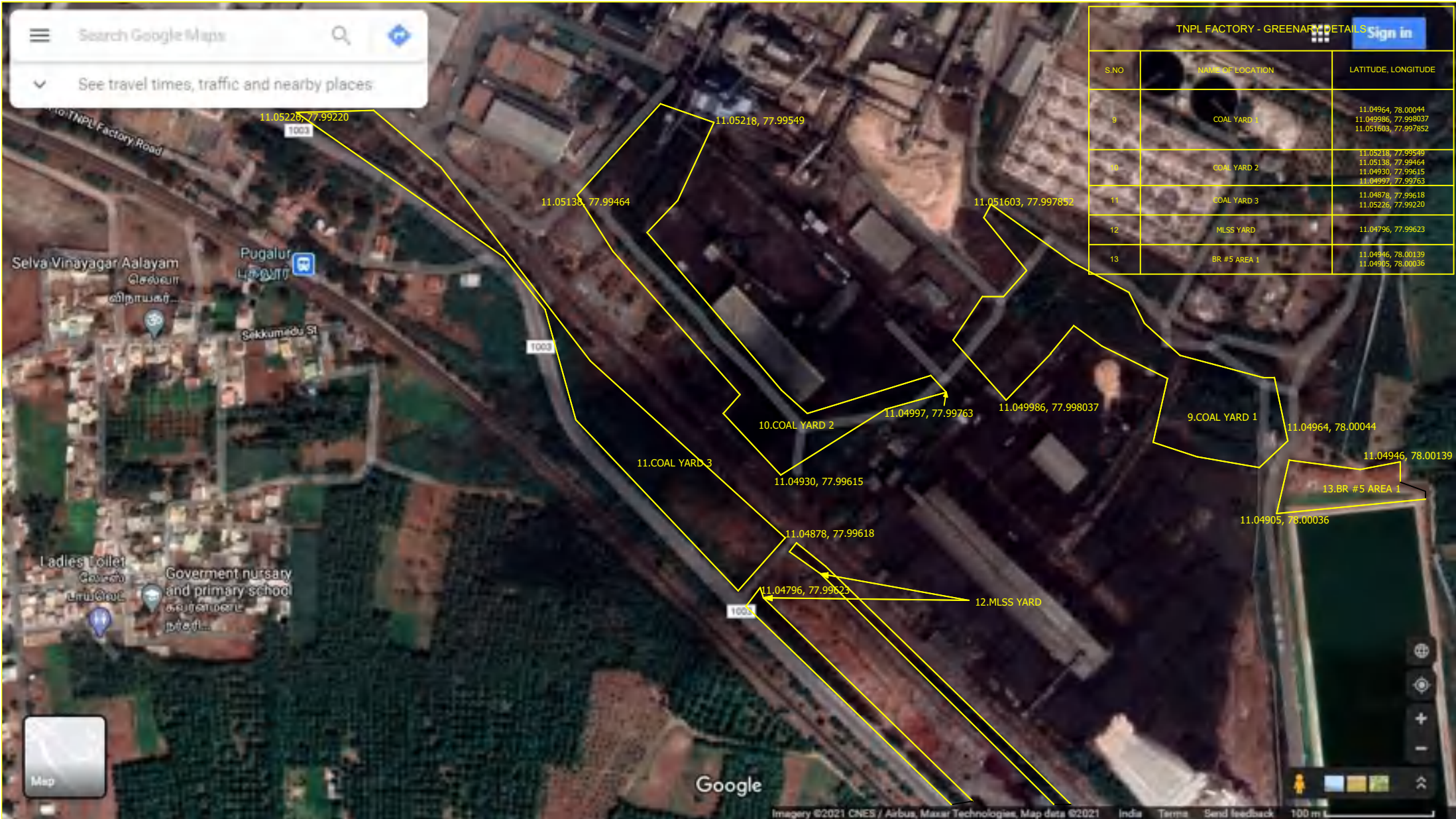
S.NO	NAME OF LOCATION	LATITUDE, LONGITUDE
18	CEMENT PLANT - ENTRANCE	11.03876, 78.00635 11.03716, 78.00701
19	CEMENT PLANT - COAL SHED AREA	11.03806, 78.00836 11.03650, 78.00915
20	CEMENT PLANT - RAMP	11.03834, 78.00851 11.03654, 78.00999
21	CEMENT PLANT - COMPOUND	11.03872, 78.00784 11.03858, 78.01030 11.03697, 78.01034

Search Google Maps

See travel times, traffic and nearby places

TNPL FACTORY - GREENARY DETAILS		
S.NO	NAME OF LOCATION	LATITUDE, LONGITUDE
14	BR #5 AREA 2	11.04565, 78.00174 11.04907, 78.00038
15	BR #3 & 4 AREA	11.04410, 78.00370 11.04310, 78.00817 11.04410, 78.00370 11.03877, 78.00956





TNPL FACTORY - GREENFIELD DETAILS		
S.NO	NAME OF LOCATION	LATITUDE, LONGITUDE
9	COAL YARD 1	11.04964, 78.00044 11.04986, 77.998037 11.051603, 77.997852
10	COAL YARD 2	11.05218, 77.99549 11.05138, 77.99464 11.04930, 77.99615 11.04997, 77.99763
11	COAL YARD 3	11.04878, 77.99618 11.05226, 77.99220
12	MLSS YARD	11.04796, 77.99623
13	BR #5 AREA 1	11.04946, 78.00139 11.04905, 78.00036

Search Google Maps

See travel times, traffic and nearby places









TNPL FACTORY - GREENARY DETAILS		
S.NO	NAME OF LOCATION	LATITUDE, LONGITUDE
1	BR#1 - WTP AREA	11.062078, 77.995791 11.059569, 77.998415
2	NEW TIPPLER	11.058104, 77.998221
3	OLD TIPPLER	11.056877, 77.999559



Search Google Maps

See travel times, traffic and nearby places

Sign in

11.056669, 78.001924

11.056921, 77.999947

7.ANAEROBIC LAGOON

4.BR#2 - ETP AREA

11.054268, 77.999256

11.054034, 77.998891

8.PRIMARY CLARIFIER #2 AREA

11.055362, 77.999030

11.053087, 77.999682

11.052912, 77.997906

11.052462, 77.999145

6.CLARIFIER - ETP AREA

11.052104, 78.001451

11.051862, 78.001927

11.051279, 78.001232

11.051138, 77.999628

5.ASL LAGOON - ETP AREA

11.049440, 78.001060

TNPL FACTORY - GREENARY DETAILS		
S.NO	NAME OF LOCATION	LATITUDE, LONGITUDE
4	BR#2 - ETP AREA	11.056669, 78.001924 11.051862, 78.001927
5	ASL LAGOON - ETP AREA	11.051279, 78.001232 11.049440, 78.001060 11.052612, 77.997906
6	CLARIFIER - ETP AREA	11.052104, 78.001451 11.052462, 77.999145 11.051138, 77.999628
7	ANAEROBIC LAGOON	11.056921, 77.999947 11.054034, 77.998891
8	PRIMARY CLARIFIER #2 AREA	11.054268, 77.999256 11.053087, 77.999682 11.055362, 77.999030

Map

Google

TNPL FACTORY GREENERY PHOTOS

TNPL Factory Photos of Greenbelt Area



TNPL FACTORY GREENERY PHOTOS



TNPL FACTORY GREENERY PHOTOS



ANNEXURE 9

CREP compliance by TNPL Cement Plant, Kagithapuram
(for the period between Oct'22 and Mar'23)

Sl. No.	Action Points in CREP	Compliance Status
1	Implementation of standards in non-complying units.	TNPL Cement Plant operations are in compliance with the latest notified norms.
2	Plants in critically polluted or urban area (5 km distance outside urban boundary) will meet 100 mg/Nm ³ SPM emission and continue working to reduce the emission of particulate matter to < 50 mg/ Nm ³ .	TNPL is operating the Cement Plant for SPM emissions < 30 mg/Nm ³ . Online monitoring system for SPM has been installed in the main stacks and linked to TNPCB 'Care Air Centre' since 23.01.2014. The stack emissions are in compliance with SPM norm of < 30 mg/NM ³ .
3	The new cement kilns to be accorded NOC/EC for complying 30 mg/Nm ³ emission limit.	TNPL is operating the plant with SPM emissions < 30 mg/Nm ³ . All the major stacks viz Kiln, Coal mill, Cooler, Cement mill and Packing plant are connected online with the TNPCB 'Care Air Centre'.
4	CPCB will evolve load based standards by June 2004.	MoEF has evolved the Load Based Emission Norm of <227 g/Ton of Kiln Feed for the Cement Plant. TNPCB has recently conducted Stack Survey in TNPL Cement Plant (during Aug'22 and Feb'23) and the results were utilized to compute the load based emission for the average Kiln Feed of 949 & 768 TPD during monitoring period Aug'22 and Feb'23 respectively. The computed Load Based Emission is found to be 56 g/Ton & 71 g/Ton of Kiln Feed during monitoring period Aug'22 and Feb'23 respectively which is in compliance with the load based emission of < 227 g/Ton of Kiln Feed.
5	CPCB and NCBM will evolve SO ₂ and NO _x emission standards by June 2004.	Will comply with the norms.
6	Control fugitive emissions from all the raw material and products storage and transfer points by December 2003. The feasibility for the control of fugitive emissions from limestone and coal storage areas will be decided by the NTF. The NTF shall submit its recommendations within three months.	In the Cement Plant, raw materials viz. crushed lime stone, coal, clay and gypsum are stored in fully covered/closed sheds. Lime sludge and fly ash (received from TNPL Paper Plant) are stored in closed RCC silos. Clinker and Cement are also stored in RCC silos only. TNPL has installed dust collection and extraction system at all material transfer points to control the fugitive emissions. All material transportations are done in closed pipe and fully closed/covered conveyors. Pneumatic system is in place for transporting fly ash from bowsers to silo and mechanical dosing for adding fly ash to cement mill. Besides, the following are implemented towards reduce impact on transportation of raw material and end products: 1.No overloading of transport vehicles with materials. 2. Loaded trucks covered with tarpaulin. 3. Vehicles with valid 'Pollution under Control' Certificates are allowed.

		<p>4. A separate Truck Parking Area is earmarked near the Main Gate which is fully concreted.</p> <p>5. Ramp with BT road is provided at the crusher.</p> <p>6. All the roads to the tune of 1.68 km are concretized.</p> <p>7. Mechanized road sweeping machine is used regularly for cleaning the roads to avoid fugitive emissions.</p> <p>8. Water sprinklers are provided in lime and coal handling areas.</p> <p>9. Wind barricades for a total length of 1260 meters with 20 feet above the compound wall are provided.</p>
7	CPCB, NCBM, BIS and oil refineries will jointly prepare the policy on use of pet coke as fuel by July 2003.	Will comply with the Recommendations / directions. Further, TNPL Cement plant is not using pet coke.
8	NTF will decide feasible unit operations/ sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring systems (CMS) by December 2003.	All the major stacks viz Kiln, Coal mill, Cooler, Cement mill and Packing plant are connected online with the TNPCB 'Care Air Centre'.
9	Tripping in Kiln ESP to be minimized by July 2003.	TNPL has installed reverse air bag house (RABH) for Raw mill / Kiln circuit. So, tripping in Kiln ESP is not applicable.
10	Industries will submit the target date to enhance utilization of waste materials.	TNPL (LSFM) is already using waste materials like lime sludge and fly ash from the Paper Mill. TNPL had installed the Mini Cement plant only for handling of above solid wastes under "Lime Sludge Fly Ash Management". Towards this, M/s. TNPL is under progress for fixing the external NABL Accredited laboratory to carry out the feasibility study.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	Noted.
12	Cement industry will carry out feasibility study and submit target date to CPCB for cogeneration of power by July 2003.	TNPL Cement Plant do not have any Captive Power production facility as the entire power requirement for the plant is met from TNPL Captive Power Plant. Further, in Pyro Process of Cement plant, the Exit gases from rotary kiln and preheater having the temperature of around 400°C is used in Raw mills to dry incoming raw materials, lime sludge drying, coal mills for drying of coal and part of emission is being supplied for the production of Precipitated Calcium Carbonate in the M/s Omya India Private Limited located adjacent to TNPL Cement Unit. The balance quantity will only be emitted from the Kiln stack and hence co-generation of power is not feasible.



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

EMS/Cement/16
17 August 2016

The APCCF(C),
Ministry of Environment, Forest & Climate change,
Regional Office (SEZ),
34, HEPC Building, Cathedral Garden Road,
Nungampakkam, Chennai 600 034.

Dear Sir,

Sub: TNPL Mini Cement Plant - enhancement of cement production capacity from 0.22MTPA (600 TPD) to 0.33 MTPA (900 TPD) - Responses received during public notice of EIA report- Submission of compliance report for implementation-reg

Ref: SEIAA-TN/ F-3082/KAR/ 3(b)/EXP/EC-8/2014 dated 12.03.2015

This has reference to the Environmental clearance (EC) accorded by SEIAA, Tamil Nadu for the project of modernization/upgradation of TNPL Cement Plant, Kagithapuram, Karur District for enhancement of cement production capacity from 0.22MTPA (600 TPD) to 0.33 MTPA (900 TPD) . In compliance to point no. 23 stipulated under special conditions of the EC cited under reference, we have implemented all the works against the responses received during public notice of EIA report by allocated a budget of Rs.25 lakhs. The details of implementation is submitted herewith.

This is for your kind information and records.

Thanking you,

For TAMIL NADU NEWSPRINT AND PAPERS LIMITED

(T.V. Loganathan)
General Manager (Civil)

Encl: as above.

- cc: (1) The Member Secretary, SEIAA, Tamil Nadu, 4D, Panagal Building,
No1., Jeenis Road, Saidapet, Chennai - 600 005.
(2) The Member Secretary, TNPCB, Chennai
(3) The Zonal Office (South), Central Pollution Control Board, 1st & 2nd Floors,
Nisarga Bhavan, A-Block, Thimmaiah Main Road, 7th D Cross, Bengaluru -560 010
(4) The Joint Chief Environmental Engineer, TNPCB, Thuvakudi, Trichy
(5) The District Environmental Engineer, TNPCB, Karur

o/c

**ACTION TAKEN ON RESPONSES RECEIVED DURING
PUBLIC NOTICE OF EIA OF THE TNPL MINI CEMENT PLANT
EXPANSION TO ENHANCE THE PRODUCTION FROM
0.22MTPA to 0.33MTPA**

SL. NO	DETAILS OF RESPONSES RECEIVED	DETAILS OF IMPLEMENTATION	STATUS OF IMPLEMENTATION	REFERENCE
1	Cleaning of bushes, debris along the road side leading to Moolimangalam to Moorthypalayam	All the bushes and debris along with road side leading to Moolimangalam to Moorthypalayam was cleared.	IMPLEMENTED.	The photographs depicting implementation is submitted as Annexure I
2	Construction of parapet wall to the well situated at Nanaparappu village.	The parapet wall of the well located in the Mariamman temple of Nanaparappu village was constructed and the bushes around the well area was also cleaned.	IMPLEMENTED.	The photographs depicting implementation is submitted as Annexure II
3	Construction of ladies toilet at Moolimangalam village	One toilet for exclusive use of ladies was constructed in the Moolimangalam village.	IMPLEMENTED.	The photographs depicting implementation is submitted as Annexure III
4	Construction of compound wall to Panchayat Union Primary School, Moorthypalayam	Compound wall for the Panchayat Union Primary School located in the Moorthypalayam was constructed.	IMPLEMENTED.	The photographs depicting implementation is submitted as Annexure IV.
5	Construction of retaining wall for storm water ravine going through Moorthypalayam village.	Construction of retaining wall for storm water ravine going through Moorthypalayam village was completed.	IMPLEMENTED.	The photographs depicting implementation is submitted as Annexure V.
6	Repairing and relaying of damaged BT (Black Topped) road in P.Thottakuruchi	Repairing and relaying of damaged Black Topped (BT) road in Punjai Thottakuruchi was completed.	IMPLEMENTED.	The photographs depicting implementation is submitted as Annexure VI



1. Bushes being cleared by JCB



2. Debris being collected by JCB



3. Cleared bushes and debris are loaded in tipper for disposal



4. Cleaned road from Moolimangalam to Murthipalayam



1. Overall view of parapet wall constructed



2. Well entry point



3. Approach steps to the well



4. Close view of the constructed parapet wall



Public toilet at constructed at Moolimangalam



**Photograph of Murthypalayam Panchayat
Union Primary School compound wall (View
from outside premises)**



**Photograph of Murthypalayam Panchayat
Union Primary School compound wall (View
from inside premises)**



**Overall view of storm water ravine
constructed at Murthypalayam village**



**Close view of the storm water ravine
constructed at Murthypalayam village**



**View of Black Topped road repaired and relayed by TNPL
at Punjai Thottakurchi village**

STATUS OF CSR ACTIVITIES CARRIED OUT DURING OCTOBER - 2022 TO MARCH - 2023

Sl.No	CSR Activities Carried Out During Oct'22 TO Mar'23	Cost incurred. Rs. in Lakhs
1	Every year, TNPL adopts 5 children to provide free education at TNPL Matriculation Higher Secondary School from Onavakkalmedu village students are studying between LKG to 12th standard.	0.00
2	Every year, TNPL sponsors 5 students belonging to surrounding villages to undergo 3 and 1/2 years Diploma course in Paper Technology at Shashesayee Institute of Technology (SIT),Trichy.	1.60
3	Industrial Training Institute in affiliation with National Council Vocational Training (NCVT) and the Quality Council of India (QCI) is being run through TNPL Arakkodai Trust, covering four trades Viz. Instrument Mechanic, Fitter, Electrician and Welder.	27.18
4	TNPL organizes Special Medical Camps, Cancer screening Camps in association with leading Medical hospitals, organizing Monthly mobile camps for the benefit of the rural people in surrounding villages. Organizing Blood donation camps in association with Blood Bank Karur. Developing infrastructure facilities in the surrounding Government Hospitals. Providing Aids Appliances to the differently abled persons through District Disabled Rehabilitation and Welfare Officer (DDRWO) Karur.	6.44
5	Computer, Typewriting and Tailoring training centres have been set up to provide Career development training to unemployed youth in the neighbouring villages for enhancing employability skills / entrepreneurship skills.	1.82
6	Providing Physical Training at TNPL sports ground to the unemployed youth to take part in the Police Selection for the post of Constable and Sub-Inspector. Tiffin, Lunch, snacks, etc will be provided. Expert coaching classes are being provided during the training classes. Providing skill development Training for rural youth in association with TNPL I.T.I and Indian Overseas Bank/ Rural Self Employment Training Institute, Karur and other institutions. Sponsorship and Stipend will be provided to candidates to attend vocational training programmes and skill development programmes and Dual Training scheme at TNPL.	3.78
7	Infrastructure development works in the surrounding Municipality, Town Panchayat and Panchayat areas viz. , Pugalr Municipality, Punjai Thottakurichi, and Nanjai Pugalur, Kombupalayam, Punnam, Thirukkaduthurai, Vettamangalam Panchayats.	21.8
7	Distributing Drinking water to the surrounding villages viz., Palamapuram, 2)Pandipalayam, 3)Tadhampalayam, 4)Moolimangalam, 5)Ponniagoundanpudur, 6)Narippalli Thottam, 7)Kariyampatti, 8)Kandasampalayam, 9)Velliyampalayam, 10)Sullikaradu, and Chattram road 11) Nanaparappu 12) Thannasigoundanputhur 13) Thunduperumal Palayam and TEWLIS Ayacut areas etc., and community development activities etc.,	94.11
8	Production and Supply of Tree Saplings and planting saplings in the surrounding villages.	1.15
9	Developing greenbelt and garden in the surrounding areas and Karur Railway station. Promotion of organic manures, Developing Solid Waste Management projects in the surrounding villages.	2.49
10	Infrastructure works to preserve Heritage Buildings including Place of worship in Karur District.	0.00
	Total (in Lakhs)	160.37

Table No.1

Cost Towards Pollution Control Facilities

Parameter	Capital cost (Rs. Lakhs since 2013 EC)	Operating Cost Rs. Lakhs/year
Air pollution control systems (ESP and Chimney for the power boiler#7 under capital)	800	325
DIP Sludge dewatering system and handling	1000	195
Water conservation and recycling for DIP	700	-
Cost incurred on Water conservation measures (118 projects)	157	-
Online monitoring and control equipment and instruments	123	10
Dust suppression system for coal handling area	130	23
Air cooled condenser for conservation of water	1000	193
Greenbelt and green cover development	64	125
Safety systems installations	100	
Safety and environmental staff costs		350
Total	4074	1221

Table No. 2

Enterprise Social Commitment

Sector	2013 -14	2014 -15	2015 - 16	2016 -17	2017 - 18	2018 - 19	2019 - 20	2020- 21	2021- 22	2022- 23
Education	69	47	120	110	92	88	103	17	68	80.85
Health Care and Medical Service	10	22	67	89	33	37	136	32	139	7.43
Infrastructure Development	94	-	-	-	54	84	44	49	5	21.8
Social Development	-	193	101	230	-	70	43	75	131	144.16
Livelihood / Economic Development	109	-	-	-	25	62	10	16	3	-
Environment & Sanitation	26	93	66	51	33	33	14	6	2	5.2
Culture & Heritage	20	18	16	26	19	21	35	16	0.4	2
Soil and Water Conservation	-	-	-	-	-	10	14	8	-	-
Total (Rs. in Lakhs)	327	373	369	505	255	406	399	219	349	261
Total (Rs. in Crores)	34.66									

ANNEXURE - I**ANNUAL REPORT ON CORPORATE SOCIAL RESPONSIBILITY (CSR) ACTIVITIES****1. Brief outline on CSR Policy of the Company**

This policy is framed with the larger objective of seeking comprehensive all round development of the area where TNPL's plants are located, primarily in a radius of 5 to 10 km from the plant locations at Kagithapuram in Karur district and Mayanur and Mondipatti in Thiruchirapalli district. TNPL will also undertake holistic development on a pilot basis in adjoining areas. The broad sectors included in TNPL's CSR policy are Livelihood/Economic Development, Soil and Water Conservation, Education, Public Health and Medicare, Social Development, Environment and Sanitation, Culture and Heritage and Infrastructure Development. The primary focus will be the well-being of all citizens in the area. The policy intends to provide the basis for sustainable development of the area. The policy recognizes that the plants cannot function in isolation but be socially responsible. It seeks to promote continuous dialogue with the community upholding ethical practices. The economic and social aspirations of the people in the area are to be recognized and promoted.

The projects undertaken are within the broad framework of Schedule VII of the Companies Act, 2013. Details of the CSR policy and projects or programs undertaken by the Company are available on links given below:

https://www.tnpl.com/uploads/documents/TNPL_CSR_Policy_and_Annual_Action_Plan.pdf

<https://www.tnpl.com/csr>

2. Composition of the CSR Committee

Sr. No	Name of Director	Designation / Nature of Directorship	Number of meetings of CSR Committee held during the year	Number of meetings of CSR Committee attended during the year
1	Tmt. Soundara Kumar	Chairman	1	1
2	Thiru N. Narayanan, I.A.S., (Retd.)	Member	1	1
3	Thiru V Chandrasekaran	Member	1	1
4	Thiru P.B. Santhanakrishnan	Member	1	1
4	Dr. M. Arumugam	Member	1	1

3. Provide the web-link where Composition of CSR committee, CSR Policy and CSR projects approved by the board are disclosed on the website of the Company

Composition of the CSR committee shared above and is available on the Company's website on

<https://www.tnpl.com/Corporate-Governance#>

https://www.tnpl.com/uploads/documents/TNPL_CSR_Policy_and_Annual_Action_Plan.pdf

CSR projects - <https://www.tnpl.com/csr>

4. Provide the details of Impact assessment of CSR projects carried out in pursuance of sub-rule (3) of Rule 8 of the Companies (Corporate Social Responsibility Policy) Rules, 2014, if applicable (attach the report):

Not Applicable.

5. Details of the amount available for set off in pursuance of sub-rule (3) of Rule 7 of the Companies (Corporate Social Responsibility Policy) Rules, 2014 and amount required for set off for the financial year, if any

Sr. No	Financial Year	Amount available for set-off from preceding financial years (₹ In lakhs)	Amount required to be setoff for the financial year, if any (₹ In lakhs)
NIL			

6. Average net profit of the Company as per Section 135(5): ₹ 8234 Lakhs
7. (a) Two percent of average net profit of the Company as per section 135(5) : ₹ 164.69 Lakhs
- (a1) Additional amount sanctioned by CSR Committee for on going activities and Covid-19 preventive measures : ₹ 207 Lakhs
- (b) Surplus arising out of the CSR projects or programmes or activities of the previous financial years : NIL
- (c) Amount required to be set off for the financial year, if any : NIL
- (d) Total CSR obligation for the financial year (7a+7a1+7b-7c) : ₹ 371.69 Lakhs
8. (a) CSR amount spent or unspent for the financial year:

Total Amount Spent for the Financial Year (₹ In Lakhs)	Amount Unspent (₹ In crore)				
	Total Amount transferred to Unspent CSR Account as per Section 135(6)		Amount transferred to any fund specified under Schedule VII as per second proviso to Section 135(5)		
	Amount	Date of transfer	Name of the Fund	Amount	Date of transfer
348.39	-	-	-	-	-

- (b) Details of CSR amount spent against ongoing projects for the financial year:

(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)	(11)	
Sr. No.	Name of the Project	Item from the list of activities in Schedule VII to the Act	Local area (Yes/ No)	Location of the project		Project duration	Amount allocated for the project (₹ In lakhs)	Amount spent in the current financial Year (₹ In lakhs)	Amount transferred to Unspent CSR Account for the project as per Section 135(6) (₹ In lakhs)	Mode of Implementation - Direct (Yes/No)	Mode of Implementation - Through Implementing Agency	
				State	District						Name	CSR Registration number
NIL												

(c) Details of CSR amount spent against other than ongoing projects for the financial year:

(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	
Sr. No.	Name of the Project	Item from the list of activities in schedule VII to the Act	Local area (Yes/ No)	Location of the project		Amount spent for the project (₹ In lakhs)	Mode of implementation- Direct (Yes/No)	Mode of implementation - Through implementing agency	
				State	District			Name	CSR registration number
1	Sponsoring of students to undergo diploma in paper technology at SIT, Trichy:	(ii)	Yes	Tamilnadu	Karur	7.25	Yes	-	-
2	Free Education to the downtrodden Children.	(ii)	Yes	Tamilnadu	Karur	12.36	Yes	-	-
3	Running Industrial Training Institute	(ii)	Yes	Tamilnadu	Karur	47.43	Yes	-	-
4	COVID-19 support - Medical equipments to PHC etc.,	(i)(xii)	Yes	Tamilnadu	Karur	138.75	Yes	-	-
5	Infrastructure Development (Canal cleaning, Government Building renovation etc.,)	(i)(ii)	Yes	Tamilnadu	Karur	5.14	Yes	-	-
6	Supplying Drinking water	(i)	Yes	Tamilnadu	Karur	131.43	Yes	-	-
7	Livelihood and Economic Development – Police Constable Selection Training, Computer, Tailoring, Typewriting classes	(ii) (iii)	Yes	Tamilnadu	Karur	2.85	Yes	-	-
8	Environment & Sanitation - Greenery Development	(iv)	Yes	Tamilnadu	Karur	2.05	Yes	-	-
9	Culture & Heritage	(v)	Yes	Tamilnadu	Karur	0.41	Yes	-	-

(d) Amount spent in Administrative Overheads: NIL

(e) Amount spent on Impact Assessment, if applicable: NIL

(f) Total amount spent for the Financial Year (8b+8c+8d+8e) : ₹ 348.39 Lakhs

(g) Excess amount for set off, if any

Sr. No.	Particular	Amount (₹ In Lakhs)
(i)	Two percent of average net profit of the Company as per Section 135(5)	164.69
(ii)	Total amount spent for the Financial Year	170.10
(iii)	Excess amount spent for the financial year [(ii)-(i)]	178.29
(iv)	Surplus arising out of the CSR projects or programmes or activities of the previous financial years, if any	NIL
(v)	Amount available for set off in succeeding financial years [(iii)-(iv)]	178.29

9. (a) Details of Unspent CSR amount for the preceding three financial years:

Sr. No.	Preceding Financial Year	Amount transferred to Unspent CSR Account under Section 135 (6) (₹ In crore)	Amount spent in the reporting Financial Year (₹ In crore)	Amount transferred to any fund specified under Schedule VII as per Section 135(6), if any			Amount remaining to be spent in succeeding financial years (₹ In crore)
				Name of the Fund	Amount (₹ In crore)	Date of transfer	
NIL							

(b) Details of CSR amount spent in the financial year for ongoing projects of the preceding financial year(s):

1	2	3	4	5	6	7	8	9
Sr. No.	Project ID	Name of the Project	Financial Year in which the project was commenced	Project duration	Total amount allocated for the project (₹ In crore)	Amount spent on the project in the reporting Financial Year (₹ In crore)	Cumulative amount spent at the end of reporting Financial Year (₹ In crore)	Status of the project - Completed / Ongoing

10. In case of creation or acquisition of capital asset, furnish the details relating to the asset so created or acquired through CSR spent in the financial year (asset-wise details).

(a) Date of creation or acquisition of the capital asset(s) : NIL

(b) Amount of CSR spent for creation or acquisition of capital asset : NIL

(c) Details of the entity or public authority or beneficiary under whose name such capital asset is registered, their address etc. : Not Applicable

(d) Provide details of the capital asset(s) created or acquired (including complete address and location of the capital asset) : Not Applicable

11. Specify the reason(s), if the company has failed to spend two per cent of the average net profit as per Section 135(5) : Not Applicable

Thiru S Krishnan, I.A.S.,
Chairman and Managing Director

Tmt Soundara Kumar
Chairman, Corporate Social Responsibility Committee

"DINAMANI"
TRICHY EDITION
DATE: 25/03/2015

TNPL தமிழ்நாடு செய்தித்தாள்
காகித நிறுவனம்
காகிதமும் - 639 136, கஞ்சர் மாவட்டம், தமிழ்நாடு, இந்தியா.
தொலைபேசி : 04324 - 277 001; ஃபாக்ஸ் : 04324-277 027 மின் அஞ்சல் : pnpl@tnpl.co.in

வொது அறிவிப்பு

தமிழ்நாடு செய்தித்தாள் காகித நிறுவனம் சிமெண்ட் ஆலை (TNPL CEMENT), தனது உற்பத்தித்திறனை ஆண்டொன்றுக்கு 0.22 மில்லியன் டன்களிலிருந்து 0.33 மில்லியன் டன்களாக உயர்த்தும் பொருட்டு மேற்கொள்ளவிருக்கும் நவீன மயமாக்குதல் மற்றும் மேம்படுத்துதல் திட்டத்தை செயல்படுத்துவதற்கான சுற்றுச்சூழல் அனுமதியினை "மாநில சுற்றுச்சூழல் தாக்கம் மதிப்பீட்டு ஆணையம், தமிழ்நாடு (SEIAA-TN)" தனது 12-03-2015 தேதியிட்ட ஆணையின் மூலம் வழங்கியுள்ளது என இதன்மூலம் அறிவிக்கப்படுகிறது.

மேற்படி அனுமதி நுகரை தமிழ்நாடு மாசுக்கட்டுப்பாட்டு வாரியம் அலுவலகத்திலும் மற்றும் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் இணையத்தளமான <http://www.seiaa.tn.gov.in>-ஐயும் பார்த்து தெரிந்துகொள்ளலாம்

செ.ம.வொ.கி.329/வரைகலை/2015

இயக்குநர் (இயக்கம்)



TAMILNADU NEWSPRINT AND PAPERS LIMITED

KAGITHAPURAM-639 136, KARUR DIST., TAMILNADU, INDIA
PHONE: 04324-277001; FAX: 04324-277027 Mail: pmd@tnpl.co.in

PUBLIC NOTICE

This is to inform that "State Level Environment Impact Assessment Authority, Tamil Nadu" has accorded Environmental Clearance for the project of Modernization/Upgradation of M/s Tamil Nadu Newsprint and Papers Limited - Cement Plant to enhance its production capacity from 600 TPD (0.22 MTPA) to 900 TPD (0.33MTPA) vide its Order dated 12.03.2015.

Copies of the clearance letter is available with the Tamil Nadu State Pollution Control Board and may also be seen at the Website of SEIAA at <http://www.seiaa.tn.gov.in>.

DIPR/329/Display/2015

DIRECTOR (OPERATIONS)



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

ENV/CEMENT/15
March 26, 2015

The Executive Officer,
Kagithapuram Town Panchayat,
Kagithapuram,
Karur District

Sir,

Sub: TNPL Mini Cement Plant Expansion - Intimation on issuance of EC -reg.

With reference to subject matter, we would like to inform that "State Level Environment Impact Assessment Authority, Tamil Nadu" has accorded Environmental Clearance for the project of Modernization/ Upgradation of M/s TNPL CEMENT PLANT to enhance it's capacity from 0.22 Million Tons per Annum to 0.33 Million Tons per Annum vide its order dated 12.03.2015.

A copy of the Environmental Clearance letter is enclosed herewith.

This is for your kind information.

Thanking you,

Yours Faithfully,
For TAMIL NADU NEWSPRINT AND PAPERS LIMITED,

8
RMA → 26.03.15
(R.MANI)
Director (Operations)

o/c



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

ENV/CEMENT/15
26- மார்ச் -2015

திரு. ரா. இராஜேந்திரன் அவர்கள்,
த/பெ. திரு. இராசப்பன்,
மூலிமங்கலம் கிராமம்,
கடநூர் மாவட்டம்

ஐயா,

தமிழ்நாடு செய்தித்தாள் காகித நிறுவனம் சிமெண்ட் ஆலை (TNPL CEMENT). தனது உற்பத்தித்திறனை ஆண்டொன்றுக்கு 0.22 மில்லியன் டன்களிலிருந்து 0.33 மில்லியன் டன்களாக உயர்த்தும் பொருட்டு மேற்கொள்ளவிருக்கும் நவீன மயமாக்குதல் மற்றும் மேம்படுத்துதல் திட்டத்தை செயல்படுத்துவதற்கான சுற்றுச்சூழல் அனுமதியினை மாநில சுற்றுச்சூழல் தாக்கம் மதிப்பீட்டு ஆணையம், தமிழ்நாடு (SEIAA-TN)- தனது 12-03-2015 தேதியிட்ட ஆணையின் மூலம் வழங்கியுள்ளது.

சுற்றுச்சூழல் அனுமதி ஆணையின் நகல் தகவலுக்காக இத்துடன் இணைக்கப்பட்டுள்ளது.

இப்படிக்கு,

தங்கள் உண்மையுள்ள,

தமிழ்நாடு செய்தித்தாள் காகித நிறுவனத்திற்காக,

ரா. மணி 26.03.15

(ரா. மணி)

இயக்குநர் (இயக்கம்)

o/c



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

ENV/CEMENT/15
26- மார்ச் -2015

திரு. கு. தங்கவேல் அவர்கள்,
25, நல்லியாம்பாளையம்,
மூலிமங்கலம் (PO),
கரூர் மாவட்டம்

ஐயா,

தமிழ்நாடு செய்தித்தாள் காகித நிறுவனம் சிமெண்ட் ஆலை (TNPL CEMENT). தனது உற்பத்தித்திறனை ஆண்டொன்றுக்கு 0.22 மில்லியன் டன்களிலிருந்து 0.33 மில்லியன் டன்களாக உயர்த்தும் பொருட்டு மேற்கொள்ளவிருக்கும் நவீன மயமாக்குதல் மற்றும் மேம்படுத்துதல் திட்டத்தை செயல்படுத்துவதற்கான சுற்றுச்சூழல் அனுமதியினை மாநில சுற்றுச்சூழல் தாக்கம் மதிப்பீட்டு ஆணையம், தமிழ்நாடு (SEIAA-TN)- தனது 12-03-2015 தேதியிட்ட ஆணையின் மூலம் வழங்கியுள்ளது.

சுற்றுச்சூழல் அனுமதி ஆணையின் நகல் தகவலுக்காக இத்துடன் இணைக்கப்பட்டுள்ளது.

இப்படிக்கு,

தங்கள் உண்மையுள்ள,

தமிழ்நாடு செய்தித்தாள் காகித நிறுவனத்திற்காக,

ரா. மணி
26.03.15

(ரா. மணி)

இயக்குநர் (இயக்கம்)

de



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

ENV/CEMENT/15
26- மார்ச் -2015

திரு. R. கணேசன் அவர்கள்,
24, நல்லியாம்பாளையம்,
மூலிமங்கலம் (PO),
கரூர் மாவட்டம்

ஐயா,

தமிழ்நாடு செய்தித்தாள் காகித நிறுவனம் சிமெண்ட் ஆலை (TNPL CEMENT). தனது உற்பத்தித்திறனை ஆண்டொன்றுக்கு 0.22 மில்லியன் டன்களிலிருந்து 0.33 மில்லியன் டன்களாக உயர்த்தும் பொருட்டு மேற்கொள்ளவிருக்கும் நவீன மயமாக்குதல் மற்றும் மேம்படுத்துதல் திட்டத்தை செயல்படுத்துவதற்கான சுற்றுச்சூழல் அனுமதியினை மாநில சுற்றுச்சூழல் தாக்கம் மதிப்பீட்டு ஆணையம், தமிழ்நாடு (SEIAA-TN)- தனது 12-03-2015 தேதியிட்ட ஆணையின் மூலம் வழங்கியுள்ளது.

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தமிழ்நாடு செய்தித்தாள் காகித நிறுவனத்திற்காக,

Handwritten signature
ரா. மணி 26.03.15

(ரா. மணி)

இயக்குநர் (இயக்கம்)

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o/c



TAMIL NADU NEWSPRINT AND PAPERS LIMITED

ENV/CEMENT/15
26- மார்ச் -2015

திரு. P. சிவசுப்பிரமணி அவர்கள்,
மூர்த்திபாளையம்,
ஓரத்தை (PO),
கரூர் மாவட்டம்

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(Handwritten signature)

ரா. மணி
26.03.15
(ரா. மணி)

இயக்குநர் (இயக்கம்)

o/c

**TAMILNADU POLLUTION CONTROL BOARD**

Category of the Industry :

RED



CONSENT ORDER NO. 2208144149537 DATED: 25/08/2022.

PROCEEDINGS NO.T4/TNPCB/F.0063KAR/RL/KAR/W/2022 DATED: 25/08/2022

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT – M/s. M/S. TAMIL NADU NEWSPRINT AND PAPERS LIMITED - MINI CEMENT PLANT , S.F.No. 841,842,843,844,809&837, PUNJAI PUGALUR SOUTH village, Pugalur Taluk and Karur District - Renewal of Consent for the operation of the plant and discharge of sewage and/or trade effluent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) – Issued- Reg.

REF: 1. Proc.No. T9/TNPCB/F.0063KAR/RL/KAR/W&A/2017 DATED: 13/04/2017
2. IR.No : F.0063KAR/RL/JCEE-M/KAR/2022 dated 27/07/2022

RENEWAL OF CONSENT is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act, 6 of 1974) (hereinafter referred to as “The Act”) and the rules and orders made there under to

EXECUTIVE DIRECTOR (OPERATIONS)

M/s M/S TAMIL NADU NEWSPRINT AND PAPERS LIMITED - MINI CEMENT PLANT,
S F No. 841,842,843,844,809&837,
PUNJAI PUGALUR SOUTH Village ,
Pugalur Taluk .
Karur District .

Authorising the occupier to make discharge of sewage and /or trade effluent.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending March 31, 2027

RAGUPATHI
SANGANAN

Digitally signed by RAGUPATHI
SANGANAN
Date: 2022.08.25 16:49:02 +05:30'

**For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai**



TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products/byproducts (Col. 2) at the rate (Col 3) mentioned below. Any change in the product/byproduct and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
Product Details			
1.	Ordinary Portland Cement and Portland Pozzalana Cemen	0.33	MTPA (Million Tons Per Annum)

2. This renewal of consent is valid for operating the facility with the below mentioned outlets for the discharge of sewage/trade effluent. Any change in the outlets and the quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Outlet No.	Description of Outlet	Maximum daily discharge in KLD	Point of disposal
Effluent Type : Sewage			
1	Treated sewage	5.0	Dust Control
2.	Treated sewage	13.0	Green belt development
Effluent Type : Trade Effluent			



TAMILNADU POLLUTION CONTROL BOARD

Special Additional Conditions:

The unit shall obtain No Objection Certificate (NOC) from the Tamil Nadu Bio Diversity Board National Bio Diversity Authority if the unit is using any Biological resources or knowledge associated thereto as per the provisions of Biological Diversity Act 2002.

Additional Conditions:

1. The unit shall operate and maintain the Sewage Treatment Plant continuously and efficiently and ensure that the treated sewage is utilized for gardening and greenbelt development.
2. The industry shall ensure that no trade effluent is generated at any stage of its manufacturing process.
3. The unit shall explore the possibilities of Co-processing ETP sludge from the textile CETP members in Karur on obtaining necessary permission from CPCB and TNPCB.
4. The unit shall maintain the Thermal Substitution Ratio (TSR) and shall ensure that necessary infrastructure facilities such as feeding system, conveyor systems, etc., are provided for co processing to achieve 10 % TSR.
5. The unit shall ensure that the coal is stored in closed shed only and water used for coal wetting shall be collected and reused.
6. All internal roads shall be cleaned with road sweeper then and there and the house keeping should be done all the time effectively and water sprinkling shall be done frequently so as to arrest the dust spreading due to vehicular movement.
7. The unit shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65-2017-IA, II dated: 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
8. The unit shall not use 'use and throwaway plastics' such as plastic sheets used for food wrapping, spreading on dining table etc., plastic plates, plastic coated tea cups, plastic tumbler, water pouches and packets, plastic straw, plastic carry bag and plastic flags irrespective of thickness, within the industry premises. Instead it shall encourage use of eco friendly alternative such as banana leaf, areca nut palm plate, stainless steel, glass, porcelain plates/cups, cloth bag, Jute bag etc.,
9. This consent order does not absolve from obtaining necessary permission / clearance from other Authority or under other Statute as applicable.

RAGUPATHI
SANGANAN

Digitally signed by RAGUPATHI
SANGANAN
Date: 2022.08.25 16:49:32 +05:30

**For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai**

To

EXECUTIVE DIRECTOR (OPERATIONS),

M/s M S TAMIL NADU NEWSPRINT AND PAPERS LIMITED - MINI CEMENT PLANT,
67, MOUNT ROAD, GUINDY, CHENNAI 32,

Pin: 600032

Copy to:

- 1 The Executive Officer, T.N.P.L. PUGALUR-Town Panchayat, Pugalur Taluk, Karur District .
- 2 The District Environmental Engineer, Tamil Nadu Pollution Control Board, KARUR.
- 3 The JCEI-Monitoring, Tamil Nadu Pollution Control Board, Salem.
- 4 File



TAMILNADU POLLUTION CONTROL BOARD

Category of the Industry .

RED



CONSENT ORDER NO. 2208244149537

DATED: 25/08/2022.

PROCEEDINGS NO.T4/TNPCB/F.0063KAR/RL/KAR/A/2022 DATED: 25/08/2022

SUB: Tamil Nadu Pollution Control Board - RENEWAL OF CONSENT -M/s. M/S. TAMIL NADU NEWSPRINT AND PAPERS LIMITED - MINI CEMENT PLANT , S.F.No. 841,842,843,844,809&837, PUNJAI PUGALUR SOUTH village, Pugalur Taluk and Karur District - Renewal of Consent for the operation of the plant and discharge of emissions under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) -Issued- Reg.

REF: 1. Proc.No. T9/TNPCB/F.0063KAR/RL/KAR/W&A/2017 DATED: 13/04/2017
2. IR.No : F.0063KAR/RL/JCEE-M/KAR/2022 dated 27/07/2022

RENEWAL OF CONSENT is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981) (hereinafter referred to as "The Act") and the rules and orders made there under to

EXECUTIVE DIRECTOR (OPERATIONS)

M.s.M/S. TAMIL NADU NEWSPRINT AND PAPERS LIMITED - MINI CEMENT PLANT,
S.F No. 841,842,843,844,809&837,
PUNJAI PUGALUR SOUTH village,
Pugalur Taluk,
Karur District.

Authorizing the occupier to operate the industrial plant in the Air Pollution Control Area as notified by the Government and to make discharge of emission from the stacks/chimneys.

This is subject to the provisions of the Act, the rules and the orders made there under and the terms and conditions incorporated under the Special and General conditions stipulated in the Consent Order issued earlier and subject to the special conditions annexed.

This RENEWAL OF CONSENT is valid for the period ending March 31, 2027

RAGUPATHI
SANGANAN

Digitally signed by RAGUPATHI
SANGANAN
Date: 2022.08.25 16:50:08 +05'30'

**For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai**



TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. This renewal of consent is valid for operating the facility for the manufacture of products (Col. 2) at the rate (Col. 3) mentioned below. Any change in the products and its quantity has to be brought to the notice of the Board and fresh consent has to be obtained.

Sl. No.	Description	Quantity	Unit
Product Details			
1.	Ordinary Portland Cement and Portland Pozzalana Cemen	0.33	MTPA (Million Tons Per Annum)

2. This renewal of consent is valid for operating the facility with the below mentioned emission noise sources along with the control measures and/or stack. Any change in the emission source/control measures/change in stack height has to be brought to the notice of the Board and fresh consent Amendment has to be obtained.

I Point source emission with stack :				
Stack No.	Point Emission Source	Air pollution Control measures	Stack height from Ground Level in m	Gaseous Discharge in Nm3/hr
1	Limestone Crusher	Bag Filters with stack	10	3162
2	Kiln Raw Mill	Reverse Air Bag House with Stack	55	70005
3	Clinker Cooler	ESP with stack	40	22861
4	Coal Mill	Bag Filters with stack	40	6313
5	Cement Mill	Bag Filters with stack	55	8221
6	Packing Plant	Bag Filters with stack	40	4130
7	Chloride bypass system	Bag Filters with stack	69.3	9048
8	Limestone Secondary Crusher Stack I	Bag Filters with stack	39.6	17000
9	Limestone Secondary Crusher Stack II	Bag Filters with stack	39.6	27000
II Fugitive/Noise emission :				
Sl. No.	Fugitive or Noise Emission sources	Type of emission	Control measures	
1.	Limestone crushing area	Fugitive	Bag Filter	
2.	Coal Handling Area	Fugitive	Water sprinkler system	
3.	Clinker cooler area	Fugitive	Bag Filter	
4.	Cement Mill area	Fugitive	Bag Filter	
5.	fly ash handling area	Fugitive	Bag Filter	



TAMILNADU POLLUTION CONTROL BOARD

Special Additional Conditions:

- i) The unit shall install the approved retrofit emission control device/equipment with at least 70% Particulate matter reduction efficiency on all DG sets with capacity of 125 KVA and above or otherwise the unit shall be shift to gas based generators within the time frame prescribed in the notification No. TNPCB/Labs/DD(L)02151/2019 dated 10.06.2020 issued by TNPCB.
- ii) The unit shall obtain No Objection Certificate (NOC) from the Tamil Nadu Bio Diversity Board National Bio Diversity Authority if the unit is using any Biological resources or knowledge associated thereto as per the provisions of Biological Diversity Act 2002.

Additional Conditions:

1. The Unit shall operate and maintain the Air Pollution Control measures effectively and continuously so that the emission shall satisfy the Ambient Air Quality/Emission standards prescribed by the Board & MoEF & CC at all times.
2. The Unit shall ensure the online connectivity with Care Air Centre of TNPCB, Chennai to provide proper quality data at all times.
3. The Unit shall comply with the CPCB guidelines issued for prevention and control of fugitive emissions from cement plants as in PROBES/118/ 2007 dated: 06.07.2007.
4. The Unit shall comply with emission standards as prescribed in MoEF & CC notification dated: 25.08.2014 and 09.05.2016.
5. The unit shall maintain and calibrate the online continuous stack monitoring system regularly so as to transmit good quality data at all times.
6. The performance efficiency of the APC devices shall be conducted every year and shall ensure that the APC devices are working as per the design capacity. If there is any enhancement of production the unit shall justify the adequacy of the APC devices.
7. Fugitive emission monitoring shall be conducted at cement mill, coal mill and Raw material handling area and the report shall be submitted to TNPCB.
8. All continuous emission monitoring systems should be operated as per CPCB CEMs guidelines and the data shall be transmitted as per guidelines. The performance calibration shall be conducted once in a year and report shall be submitted to TNPCB.
9. The unit shall conduct a comprehensive Environmental audit through a laboratory approved by CPCB MoEF once in a year which includes water audit, ETP/STP adequacy & efficacy, APCD performance efficiency etc, and shall furnish report to TNPCB.
10. This consent order does not absolve from obtaining necessary permission / clearance from other Authority or under other Statute as applicable.
11. The unit shall continue to develop greenbelt in and around the premises of the unit.
12. In case of revision of consent fee by the Government, the unit shall remit the difference in amount within one month from the date of notification, failing to remit the consent fee, this consent order will be withdrawn without any notice and further action will be initiated against the unit as per law

RAGUPATHI
SANGANAN

Digitally signed by RAGUPATHI
SANGANAN
Date: 2022.08.25 16:20:37 +05:30

**For Member Secretary,
Tamil Nadu Pollution Control Board,
Chennai**

To

EXECUTIVE DIRECTOR (OPERATIONS),
M/s M.S. TAMIL NADU NEWSPRINT AND PAPERS LIMITED - MINI CEMENT PLANT,
67, MOUNT ROAD, GUINDY, CHENNAI 32,
Pin 600032

Copy to:

1. The Executive Officer, T.N.P.L. PUGALUR-Town Panchayat, Pugalur Taluk, Karur District .
2. The District Environmental Engineer, Tamil Nadu Pollution Control Board, KARUR.
3. The JCEE-Monitoring, Tamil Nadu Pollution Control Board, Salem.
4. File



TAMILNADU POLLUTION CONTROL BOARD

ANNEXURE 15**SUBMITTING DETAILS OF SIX MONTHLY COMPLIANCE REPORT**

SL.NO	Description	Submitted on
01	First report	05/12/2015
02	Second report	25/06/2016
03	Third report	27/10/2016
04	Fourth report	04/05/2017
05	Fifth report	08/11/2017
06	Sixth report	05/04/2018
07	Seventh report	28/09/2018
08	Eight report	16/07/2019
09	Ninth report	15/11/2019
10	Tenth report	28/05/2020
11	Eleventh report	21/11/2020
12	Twelfth report	17/08/2021
13	Thirteenth report	13/12/2021
14	Fourteenth report	18/06/2022
15	Fifteenth report	29/11/2022
16	Sixteenth report	Current report

OCCUPATIONAL HEALTH CENTRE

Tamil Nadu Newsprint and Papers Limited (TNPL) take great care of health of its employees and their dependants. Various schemes in vogue stand a testimony to the care and concern shown by the company towards the health of its employees and their dependants.

OCCUPATIONAL HEALTH CENTRE (OHC):-

TNPL has an Occupational Health Centre manned by qualified and experienced four Medical Officers, paramedical staff of two nurses, two pharmacists, one ANM, two male attenders, three female attenders and ten Ambulance drivers.

The scope of the TNPL Occupational Health Centre includes Preventing occupational hazards at work, protecting workers against hazards at work, help in adapting work and the work environment to the capabilities of the worker, promoting the physical, mental and social well-being of workers and cure and rehabilitation of accidental occupational injuries.

The main objective of the TNPL OHC are,

- To provide medical treatment and support in case of an emergency illness or accident.
- To monitor, manage and modify any adverse health effects which may occur at the workplace.
- To promote good health at the workplace.
- To plan and execute health education and awareness programmes for employees.

The major activities at TNPL are,

- Medical surveillance through measures such as periodic at medical check-ups.
- Pre-employment medical check-ups.
- Medical treatment for illness and accidents.
- Conduction health education programmes.
- Providing first aid and other related training to the employees.
- Promoting health awareness and wellness measures among employees.

The OHC renders free Medical treatment and guidance to the employees and their family members. An Amount of Rs. 13.00 lakhs per annum is spent towards medicines. Apart from the above facility, Specialists from various specialists visit OHC on Sundays. Ambulance facility is extended to the employees to meet emergency. TNPL conducts medical camp every month to attend to the health needs of the neighborhood population. Special medical camps in various specialties are conducted once 3 months. TNPL OHC conducts Rural Health Awareness & Medical Camps for Seven villages namely, Onavakkalmedu, Nalliyampalayam, Sottaiyur, Moolimangalam, Pazhamapuram, Masagoundanpudur, Kurukkupalayam. So far 277 Free Rural

Medical Camps have been conducted by the Tamilnadu Newsprint and Papers Limited. In Rural Camps, the deficiencies like Acid Peptic Disease, Impetigo, Low Back Ache, Myalgia, Upper Respiratory Infection, Worm Infection, AGE, Head Ache, Pyrexia unknown Origin, Migraine, Blood Pressure and General cases are treated and medicines at free of cost are also provided.

The approach towards health is now changing from cure to prevention. The engineering approach is to ensure safer processes, an integrated systems approach and better occupational environment, whereas the medical approach emphasizes identifying the health risks and their prevention of occupational diseases.

TNPL OHC is well equipped and updated with the latest medical technology in order to give efficient and comprehensive health care to the Working Community.

MEDICAL EQUIPMENTS:

Oxygenator:

Oxygenator is equipment which supplies pure oxygen from the normal atmospheric air. It works on 230v AC power. It is useful equipment for those patients suffering from Asthma, other Bronchial diseases. It's a good replacement for the oxygen cylinders. It need not be refilled and the same is maintained well.



T.N.P.L. Occupational Health Centre has an latest up to date model of Oxygenator, which is used for patients with Respiratory Difficulty.



Nebulizers are commonly used for treatment of cystic fibrosis, asthma, COPD and other respiratory diseases. Nebulizers use oxygen, compressed air or ultrasonic power to break up medical solutions and suspensions into small aerosol droplets that can be directly inhaled from the mouthpiece of the device.

T.N.P.L. Occupational Health centre has 2 latest versions of Nebulizers which render great service in treating Respiratory problems.

Suction Apparatus:

Suction Apparatus is a device for removing liquids or gases by suction, especially an instrument that uses suction to remove substances, such as mucus or serum, from a body cavity. It is used to create a partial vacuum. A suction machine helps to remove secretions and mucus from the airways. In addition, a suction machine may be needed when a patient has moist cough, or unable to effectively clear secretions from the throat, or are having difficulty in breathing or feel that they cannot get enough air.

The Occupational Health Centre is well equipped with 2 Suction Apparatus to handle any kind of emergencies.



ECG is used to measure the rate and regularity of heartbeats as well as the size and position of the chambers, the presence of any damage to the heart, and the effects of drugs or devices used to regulate the heart.

The Occupational Health Centre in T.N.P.L. has 2 latest model Electro Cardiogram Machines, which helps immensely in the early detection of Cardiac Diseases among the employees and their families.



Microscope:



A microscope is an instrument used to see objects that are too small for the naked eye. This is an optical instrument containing one or more lenses producing an enlarged image of a sample placed in the focal plane.

A latest model Microscope is used in the T.N.P.L. OHC, for various sample identifications.

Traction Apparatus:

Traction is applied to the cervical or lumbar spine through harnesses fastened to the head or pelvic area. This widens the inter-vertebral spaces which relieves nerve root compression by the inter-vertebral discs. The compression of the nerve roots causes sensations of pain, burning, tingling in the neck, shoulders and arms, or in the back, buttocks, legs and feet. Traction force is determined by the patient's tolerance.



T.N.P.L. OHC has an Electronic Traction apparatus that is used to treat muscular

Ophthalmoscope:

Ophthalmoscopy (funduscopy or fundoscopy) is a test that allows a health professional to see inside the fundus of the eye and other structures using an ophthalmoscope (funduscope). It is done as part of an eye examination and this is used as a part of a routine physical examination. It is crucial in determining the health of the retina and the vitreous humor.



The Occupational Health Centre has an Ophthalmoscope that is used in early detection of Diseases like Hypertension and Diabetes Mellitus.

Otoscope:



An Otoscope or auriscope is a medical device which is used to look into the ears. Health care provides use otoscopes to screen for illness during regular check-ups and also for investigating the symptoms involving the ears. With an otoscope, it is possible to see the outer ear and middle ear. The Otoscope in the Occupational Health Centre is used in ailments like, Foreign Body in Ear etc.

Automated External Defibrillator (AED):

A Defibrillator is a device that gives a high energy electric shock to the heart of the patient who is in Cardiac arrest. This high energy shock is called defibrillation and it's an essential part in trying to save the life of the patient, who is in Cardiac Arrest.



Ambulance:

TNPL Occupational Health Centre has 3 state of the art Ambulance vehicles which render yeoman service to the working community for transportation of sick and injured persons for treatment.



Cyclotron:



A Cyclotron is a type of particle accelerator. It is used in blood samples preparations.

TNPL Occupational Health Centre has to its credit a wide range of Drugs, Suture materials, emergency medicines (including anti-venom) for managing any kind Industrial Accidents, and other medicines for Clinical Emergencies and regular Outpatient Treatment.

Medicine Storage room:

The OHC has a well stocked Medicine Storage room.

A dedicated team of Doctors, staff nurses, pharmacists and paramedical staff, ensure the efficient and correct, timely health management and treatment is provided at the T.N.P.L. Occupational Health Centre, round the clock.



SPECIALIST DOCTORS VISIT TO TNPL OCCUPATIONAL HEALTH CENTRE:

For the benefit of TNPL Employees and their families, every Sunday forenoon a Specialist Doctor visits the Premise of Occupational Health Centre. The TNPL Employees and their families avail this opportunity to have their health examined.

- | | |
|--|------------------------|
| 01. Dr. P. Ramesh, M.S. | - Ophthalmic Surgeon |
| 02. Dr. D.M.T. Saravanan, MBBS, MRCP (UK). | - Cardiologist |
| 03. Dr. R. Karuppaiah, M.S. | - Orthopaedic Surgeon |
| 04. Dr. K. Ramachandran, B.D.S. | - Dental Surgeon |
| 05. Dr. D. Gurusamy Nachimuthu, M.S. | - Orthopaedic Surgeon |
| 06. Dr. S. Kiruthika, MBBS, DDVL. | - Dermatologist |
| 07. Dr. V. Shankar, M.D.D.M. | - Gastro Entero Logist |
| 08. Dr. S. Shankar, M.S. | - General Surgeon |
| 09. Dr. G. Sathish, M.S. | - Orthopaedic Surgeon |
| 10. Dr. K.S. Murugesan, D.D. | - Dermatologist |
| 11. Dr. C. Balakrishnan, M.D. | - General Physician |
| 12. Dr. R. Hariprasad, M.D. | - Pulmonologist |

Monthly Free Rural Medical Camps & Health Awareness:

The most important reason why the development of rural life in India is excessively slow is because of lack of education which further impacts every simple aspect of life. The medical know-how of the rural people is almost missing. **Medical awareness** is very important for the overall **development of the weaker and socially, educationally, and economically backward sections of the society.**

We in Tamilnadu Newsprint and Papers Limited are aware, that for a prosperous country, the villages must be kept healthy. Each one needs to be socially aware and educated to have knowledge of various kinds of diseases and that a doctor needs to be consulted whenever you undergo any kind of health problem rather than practice anything else. The backward class people are not so affluent that they can afford doctors for every simple disease condition.

The significance of medical camps is felt here. Medical camps are instituted not only to provide free medical service and checkup to the rural population, but they also focus on issues related to hygienic conditions of rural living, awareness of mothers and children who the most vulnerable to diseases. Awareness is imparted on how to live smartly.

Diseases are categorized and explained to the village folk telling them more the health conditions that can be treated at home and what are the ways in which they can be treated, diseases that need doctor's prescription, diseases that require doctor's care for a longer period of time, and diseases that require hospitalization immediately. The rural population tends to get panicked about any health hazards because they are not aware of the pros and cons of those.

They get emotionally disturbed about it easily. India is known for its poverty and depression because of health problems which is essentially due to lack of medical awareness.

Keeping this in mind, for the past Twenty Two Years, Doctors from the T.N.P.L. Occupational Health Centre visit the nearby villages every month and conduct Free, comprehensive, Health Awareness & Treatment camps. The villages that are benefited are Onavakkalmedu, Nalliyampalayam, Sottaiyur, Moolimangalam, Pazhamapuram, Masagoundanpudur, Kurrukupalayam. So far 277 Free Rural Medical camps have been conducted by TNPL.

MASTER HEALTH CHECK-UP

All permanent employees who have completed 40 years, 45 years, 50 years, 55 years and 59 years of age are sponsored for a comprehensive Health check-up at Apollo Hospitals located at Karur and Trichy Districts respectively for the year 2021-2022. Entire Master Health Check-up expenditure for the year 2021 was borne by the Company. Master Health Check-up for our employees, are arranged when they are above 40 years, second time when they are above 45 years, third time when they are above 50 years, fourth time when they are above 55 years and fifth time when they are above 59 years. 333 No of employees, who have undergone Master Health Check up for the period 2021 is furnished in the table below:

Age Group in years	2021
40 & above	49
45 & above	58
50 & above	98
55 & above	73
59 & above	55
Total	333

EYE TEST:

Employees operating heavy vehicles viz., equipment operators and drivers underwent eye test.

Distant Vision, near vision, color vision and fundal examination were performed. An amount of Rs.38,775/- was incurred towards Eye Test in the year, 2021.

EYE TEST REPORT:

	Total No of Personnel tested	Normal	Abnormal
Regular employees and Contract Workmen	141	141	-

AUDIOMETRY TEST:

Audiometry test was done to employees, those who were exposed to high noise levels. An amount of Rs.40,500/- (Rs.18000.00 + Rs.22500.00) was incurred for Audiometry Test in the year, 2022.

The summary of expenditure incurred for the health care of the employees is given below:

PURE TONE AUDIOGRAM REPORT

No. of Employees Tested	Normal Audiogram	Abnormal Audiogram
90	90	NIL

All employees who are exposed to noise in the work environment are provided with good quality **ear muffs** to protect their hearing capacity.

PRE-EMPLOYMENT MEDICAL EXAMINATION:

The candidates, who are selected for jobs in TNPL, undergo Pre-Employment Medical Tests as advised by the Occupational Health Centre, TNPL.

They are advised to undergo the following Medical Tests in reputed laboratories.

1. Blood Tests – Urea, Creatinine, Blood Sugar, Cholesterol.
2. Urine Tests – Urine Routine, Specific Gravity, Urine Albumin, Urine Sugar.
3. Chest X-ray.
4. Electro Cardio Gram (ECG).
5. Pulmonary Function Test (PFT).
6. Pure Tone Audiogram.
7. Ophthalmic Evaluation.
8. E.N.T Surgeon's Opinion.
9. Ophthalmic Surgeon's Opinion.
10. General Physician's Opinion.

INDUSTRIAL ACCIDENT:

When employees sustain injuries while on duty, Company bears the entire medical expenses. For the period, April, 2022 to September, 2022, Rs.9.30 lakhs was incurred towards entire medical expenses by the company.

MEDICAL ASSISTANCE UNDER SERIOUS AILMENTS SCHEME:

Company pays the entire hospitalization charges for employees, who suffer from the following Serious Ailments:

1. Heart Ailment
2. Cancer
3. Kidney Transplantation
4. Paralysis
5. Leprosy
6. Tuberculosis
7. Brain Surgery

The company has approved hospitals in major cities where employees can take treatment for the above 7 Serious Ailments.

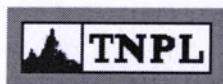
180 days of Special Leave is sanctioned to those employees, who suffer from any one of the above Serious Ailments. The employees who have exhausted the Special Leave are sanctioned additional 180 days of Special Leave on case to case basis depending upon the severity of the ailments. An expense incurred towards the above medical facility for the period, April, 2022 to September, 2022 was Rs.58.20 lakhs.

Covid – 19

TNPL has incurred an entire medical expense which is around Rs.7.62 lakhs for the employees, who were affected by Corona virus (covid-19 positive) from April, 2022 to September, 2022. In addition to that, covid affected employee has been extended leave with wages for their quarantine period.

SPECIAL MEDICAL ASSISTANCE SCHEME:

If the employee's medical expenditure is more than Rs.3,000/- and that there is a minimum period of 2 days of hospitalization, approximately 50% of the medical expenses are borne by the company for the medical expenses incurred for the employees and their dependants. An expense incurred towards the above medical facility for the period, April, 2022 to September, 2022 was Rs.107.50 lakhs.



Tamilnadu Newsprint and Papers Limited.

16 April 2022

ENVIRONMENTAL MANAGEMENT CELL

SL.NO	NAME OF THE EXECUTIVE	DESIGNATION	QUALIFICATION	RESPONSIBILITY
01	Dr. R. Seenivasan	GM (Plantation and R&D)	Doctorate	Head - Forestry, Plantation, R&D and QC, Environmental compliance and Coordinator for TNAU activities
02	Mr. S.J. Varadarajan	GM (Production and Project coordination)	BE -Chemical	Factory Manager, Production, project Head & Management Representative for Integrated Management Systems
03	Dr. Chinnaraj	AGM (R&D and Environment)	Doctorate	Responsible for Quality Control and Leader for Integrated Management Systems
04	Mr. K. Ravi	AGM (Environment)	AMIChe., Msc.,	Evaluation of Environmental Compliance and Coordination with PCB officials.
05	Mr. N. Baskaran	AGM (Lab)	M.Sc.,	Responsible for R&D and monitoring quality of Air, Effluent, Raw materials, fuels etc.
06	Mr. Navaneedhakrishnan	Sr. Manager (ETP)	M.Sc.,	Responsible for operation of ETP, Biogas Plant & TEWLIS.
PLANTATION ACTIVITES				
07	Dr. P. Chezhan	Sr.Manager (Plantation)	Doctorate	Development of new superior clones in exotic and indigenous pulp wood species for captive and farm forestry of TNPL
08	Dr. V. Prasath	Assistant Manager (Plantation)	Doctorate	Monitoring of ground water & soil in TEWLIS in association with TNAU scientists

Executive Director (Operations)

29/04/22



Tamilnadu Newsprint And Papers Limited TNPL Mini Cement Plant

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

FORM – V
(See Rule: 14)

Environmental Audit Report for the financial year ending the 31st March 2022.

PART – A

- | | | |
|---|---|---|
| (i) Name and address of the owner/occupier of the Industry, operation or process | : | TAMIL NADU NEWSPRINT AND PAPERS LIMITED
(Cement Plant) |
| (ii) Industry category
Primary:- (STC code)
Secondary:- (SIC code) | : | RED |
| (iii) Production capacity - Units

Ordinary Portland Cement & Pozzolana Portland Cement | : | 0.33 MTPA
(Million Tons per Annum) |
| (iv) Year of establishment | : | 2013 |
| (v) Date of the last environmental statement submitted | : | 23/08/2021 |



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART - B

Water and Raw material consumption

(i) Water consumption m³/day

Process	:	Nil	M ³ /day
Cooling Water*	:	190	M ³ /day
Domestic Water	:	70	M ³ /day

*(included water used for dust control & greenery development)

Name of products

Process Water consumption Per unit (MT) of products

During the current financial Year (2021-2022)

Ordinary Portland cement
& Pozzolana Portland cement

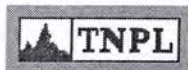
Not applicable
(being dry process, no water is used for process)



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

(ii) RAW MATERIAL CONSUMPTION

SL NO	Name of the raw material	Name of Products	Consumption of raw material per unit of output	
			During the Last Financial year (2020-21)	During the Current Financial year (2021-22)
Unit of measurement			ADMT/MT of OPC Produced	
01	Lime sludge (Dried)	ORDINARY PORTLAND CEMENT (OPC)	0.191	0.00
02	Lime grits		0.021	0.00
03	DIP sludge		0.476	0.00
04	Lime stone		0.821	0.00
05	Additives		0.087	0.00
06	Fly ash		0.00	0.00
07	Gypsum		0.042	0.00
08	Imported coal		0.125	0.00
09	Agro waste		0.066	0.00
Unit of measurement			ADMT/MT of PPC Produced	
01	Lime sludge (Dried)	PORTLAND POZZOLANA CEMENT (PPC)	0.192	0.179
02	Lime grits		0.011	0.015
03	DIP sludge		0.476	0.020
04	Lime stone		0.612	0.683
05	Additives		0.093	0.124
06	Fly ash		0.320	0.310
07	Gypsum		0.054	0.044
08	Imported coal		0.130	0.136
09	Agro waste		0.036	0.040



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PRODUCTS MANUFACTURED

Ordinary Portland Cement	:	0	MT
Portland Pozzolana Cement	:	294233	MT
Equivalent production per day	:	806	MT

RAW MATERIAL CONSUMPTION

Lime sludge (Dried)	:	52698 MT
Lime grits	:	4319 MT
DIP Sludge	:	5944 MT
Lime stone	:	200991 MT
Additives	:	36488 MT
Fly ash	:	91300 MT
Gypsum	:	13182 MT

FUEL CONSUMPTION

Imported coal	:	40256 MT
Agro waste	:	11815 MT



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART – C

POLLUTION DISCHARGED TO ENVIRONMENT / UNIT OF OUTPUT
(Parameter as specified in the consent issued)

(a) WATER

Being a dry process, no effluent is discharged from the unit.

(b) AIR

Name of pollutant : PM (mg/NM³)
Prescribed norms : 30 mg/NM³

Serial No.	Stack attached to	Quantity of pollutants emitted (Kgs per day)	Quantity of pollutants emitted in (Kg per ton of Cement)	Concentration of pollutants emitted in mg/NM ³	Percentage variation from prescribed in discharges standards with reasons
1	Coal Mill	9.45	0.012	25	NIL
2	Clinker cooler outlet	12.65	0.016	21	NIL
3	Kiln-Raw Mill	51.56	0.064	26	NIL
4	Cement Mill	14.45	0.018	28	NIL
5	Packing Plant	8.49	0.011	25	NIL

Name of pollutant : SO₂ (mg/NM³)
Prescribed norms : 100 mg/NM³

Serial No.	Stack attached to	Quantity of pollutants emitted (Kgs per day)	Quantity of pollutants emitted in (Kg per ton of Cement)	Concentration of pollutants emitted in mg/NM ³	Percentage variation from prescribed in discharges standards with reasons
1	Coal Mill	23.71	0.029	64	NIL
2	Clinker cooler outlet	8.13	0.010	13	NIL
3	Kiln-Raw Mill	58.5	0.073	29	NIL

Name of pollutant : NO_x (mg/NM³)
Prescribed norms : 600 mg/NM³

Serial No.	Stack attached to	Quantity of pollutants emitted (Kgs per day)	Quantity of pollutants emitted in (Kg per ton of Cement)	Concentration of pollutants emitted in mg/NM ³	Percentage variation from prescribed in discharges standards with reasons
1	Coal Mill	15.56	0.019	42	NIL
2	Clinker cooler outlet	12.05	0.015	20	NIL
3	Kiln-Raw Mill	72.38	0.090	36	NIL



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART – D

HAZARDOUS WASTES

(in accordance with Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008)

	Unit of measurement	TOTAL QUANTITY in MT	
		During the previous financial year 2020-2021	During the current financial year 2021-2022
From Maintenance section			
Used oil/spent oil generated from Industrial operations as lubricant in hydraulic systems or other operations	MT	0.8	1.48

*Spent oil stock for disposal - Nil

PART – E

SOLID WASTE

	TOTAL QUANTITY	
	During the previous financial year 2020-2021 (MT)	During the current financial year 2021-2022 (MT)
<u>(a) From Process</u>		
<u>Sewage Treatment Plant</u>		
Solid waste from Sewage Treatment Plant(STP)*	0.6	0.6

*STP was commissioned during April '2015.



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART – F

The characteristics of solid as well as Hazardous wastes and disposal practice adopted are given below.

HAZARDOUS WASTES

SL No	Description	Major Constituents	Mode of disposal
01	Waste Oil	Chromium: 0.15ppm Total Halogens: 3805 ppm Lead: 3.85 ppm Nickel: 0.18 ppm	Disposed to PCB Authorized recyclers.

Solid waste

SL No	Description	Major constituents: (all values are on OD basis)	Mode of disposal
01	Solid waste from Sewage Treatment Plant(STP)* (Moisture:5-10%)	Volatile matter:50-55% Ash :40-45% GCV:2500 Kcal/kg	Used as manure for greenery development



Tamilnadu Newsprint And Papers Limited TNPL Mini Cement Plant

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART – G

Impact of the Pollution Control Measures on conservation of natural resources and consequently on the cost of production.

The plant was designed to handle solid wastes such as Lime sludge and Fly ash generated from TNPL's Main unit (Paper plant) into a value added product as Cement under Lime Sludge Fly Ash Management System. This will reduce Lime stone consumption, which is sourced from lime stone mines. Thus the project ultimately reduces Lime stone consumption and as well as judiciously managing solid wastes from TNPL main unit. By utilizing 52698 MT (Dried @ 86% purity) of lime sludge generated from the TNPL main plant, about 59632 MT (@76% purity) of lime stone usage for cement production sourced from natural mines has been avoided.



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART – H

Additional measures / Investment proposals for Environmental Protection including Abatement of Pollution, Prevention of Pollution

1. The unit has already installed portable sprinklers in the materials handling area and coal storage area.
2. Mobile water tanker fitted diesel pump driven system is being engaged to suppress dust on roads due to vehicular movements.
3. Installation of high pressure water sprinklers with a span of 45 Meters along the compound wall at an height of 30 feet from the ground level to arrest fugitive emission emanating from the mill premises.
4. Water spraying on roads in and around the Cement mill premises is being carried out through mobile tankers to minimize dust level on the roads due to vehicle movements. Further water spray in the open yards of the mill premises are also being practiced with portable water sprinklers.
5. B.T road has been laid for the lime crusher feeding ramp to avoid dust emission during vehicular movements.
6. One road sweeping machine has been procured and used for periodical removal of dust particles on the cement road in side of TNPL mini cement plant. .One continuous Ambient Air Quality Monitoring Station has been procured and installed near the entrance of the TNPL's Mini Cement plant.
7. Part of CO₂ emitted from the Cement plant Lime-kiln is being used as a raw material (precipitating agent) for the production of "Precipitated Calcium Carbonate(PCC)" for the onsite PCC plant installed and operated by M/s OMYA Private Limited, Switzerland on "Build, Own & Operate (BOO)" basis. As the CO₂ requirement for the PCC plant is met out from CO₂ emitted from the cement plant kiln and the CO₂ emission from the kiln stack is reduced by 15% which is equivalent to about 7672 T/annum.



ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

PART - I

Other particulars for improving quality of Environment

1. All the five stack-emission points of TNPL Cement plant source emissions viz. Kiln (Raw Mill), Clinker cooler, Coal Mill, Cement Mill and Packing unit are provided with Online Continuous Emission Monitoring Systems (OCEMS) to monitor dust emission and the same has been linked to CARE AIR CENTRE, TNPCB, Chennai from 23/01/2014. Further, the SO₂ and NO_x emission data from Raw mill/kiln stack has been uplinked to CARE AIR CENTRE, TNPCB from 02/06/2015.
2. Separate sewage treatment plant has been installed and it is in operation. The treated sewage is utilized for greenery development within the premises.
3. TNPL has already planted 22078 trees in 8.74 Hectares against 6.04 Hectares and covered 47.68 % of Cement plant premises against the total area of 18.33 hectares.
4. Online continuous devices were installed to monitor the inlet and outlet Sewage quantity and being recorded continuously through DCS.
5. The existing Godown area has been enhanced from 952 M² with an additional 548 M² area of total 1500 M² to accommodate Raw meal stock apart from that gypsum & fly ash and other additives stored in 900 M² godown so as to avoid open yard storing to control the dust level in the open air.
6. One lime sludge storage godown has been constructed with size of (35.5 Mts*21.5Mts) = 763.25 Sq.Mts. Wet lime sludge is stored in this godown to control the air pollution in and around TNPL mini cement plant.

A report on the "World Environmental Day" celebrations carried out by TNPL Mini Cement Plant during 2022 is enclosed as Annexure-1



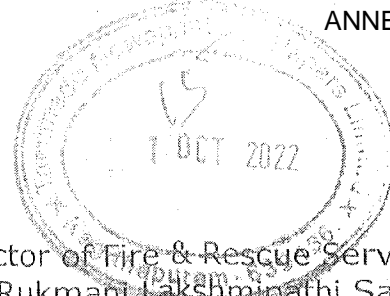
ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2021-22

ANNEXURE I

**REPORT ON WORLD ENVIRONMENT DAY- 2022 CELEBRATIONS
CONDUCTED AT TNPL**

- ❖ TNPL organized the “World Environment Day” celebrations on Saturday 4th June, at its Paper Manufacturing unit and Cement Manufacturing Complex in a grand manner. As part of celebrations, banners on various environmental topics including “Only one Earth” were displayed near the respective mill entrance gates and time office to create awareness about as the environmental theme for the year to the employees, contract workmen, trainees, apprentices etc.
- ❖ Mother Earth is providing enough natural resources to meet the needs of every human being, but the same Mother Earth cannot fulfill the entire greedy of mankind. The theme of this year's Environment Day, “Only one Earth”, affirms the same concept and emphasizing the concept, the employees, contract workmen, trainees, apprentices etc of the Paper plant and cement plant took the environmental pledge near the respective time office.
- ❖ Following the event, under the leadership of Mr.SVR. Krishnan, Executive Director (Operations) of the plant and by the presence of Chief General Manager (Production and Project Coordination) and Chief General Manager (Plantation and Research & Development) a Tree Plantation programme was organized in the vicinity of Cement manufacturing unit. A number of employees including contract workmen participated in the celebrations. The celebration was well organized by Environment and Plantation Department.





K.Dis.No.13171/C1/2022
Dated.27.09.2022.

O/o.the Director of Fire & Rescue Service,
No.17, Rukmani Lakshmi pathi Salai,
Egmore, Chennai – 600 008.

Licence No.478/2022 (Renewal)

Ref: (1) Letter from the **M/s. Tamil Nadu Newsprint and Papers Ltd., Karur**, Dated:01.08.2022.

(2) Letter R.C.No.3650/C1/2022, dated.15.09.2022 from the Chairman, MSB Inspection Committee, **Central Region, Trichy.**

With reference to the letter first cited above the Fire Licence is **renewed** as under, based on the recommendations conveyed in the reference 2nd cited above.

FIRE & RESCUE SERVICES LICENCE

The Fire Licence is hereby **renewed** under section 13 of the Tamil Nadu Fire and Rescue Service Act 1985 for the multi-storied building classified as **Group G Industrial Building, Sub-Division G-1 Low Hazard of M/s. Tamil Nadu Newsprint and Papers Limited, Cement Plant (LSFM)**, the details of the buildings are follows,

Sl. No.	Building / structures name	Type of buildings / structure	Area of buildings / structures (in sq. mtrs)	Height of buildings structures (in meters)	Maximum height of human occupancy (in meters)
1.	Security office	RCC	15.0	3.5	-
2.	Front office	RCC	97.0	4.38	-
3.	Ambulance room	RCC	54.0	4.38	-
4.	Dining hall & time Office	RCC	144.0	9.0	-
5.	Marketing building	RCC	334.0	4.39	-

6.	Stores	Steel structures	375.0	8.4	-
7.	Work shop	Steel structures	375.0	8.0	-
8.	Packing plant	RCC	1014.0	28	5
9.	Cement mill MCC room	RCC	166.0	4.7	3
10.	Cement mill house	RCC	954.0	26	-
11.	Gypsum / additive hopper	RCC	282.0	19.3	4
12.	Coal mill building	RCC	924.0	28	-
13.	Rotary kiln & cooler building	RCC & steel structures	466.0	12.0	9
14.	Alkali bypass building	RCC & steel structures	310.0	41	09
15.	Reverse air bag house	RCC & steel structures	2114.0	30.64	-
16.	Compressor house	Steel structures	190.0	5.39	-
17.	WTP – DM plant	Steel structures	194.0	5.39	-
18.	MCC – 2 raw mill	RCC	46.0	4.38	-
19.	Lime stone / additive hopper	RCC	117.0	16	5
20.	PPC plant MCC room	RCC	121.0	4.7	-
21.	MCC room near raw mill	RCC	340.0	6.5	4
22.	Raw mill	RCC	804.0	26.5	5
23.	Rapid dryer	RCC	615.0	18	9
24.	Fine coal bin building	RCC & steel structures	364.0	30.9	-

25.	Vacuum filter house	RCC	332.0	19.4	9
26.	Lime stone stock shed	Steel structures	1345.0	12	-
27.	Tertiary crusher building	RCC & steel structures	883.0	33.6	-
28.	Lime stone crusher shed	Steel structures	198.0	15.7	-
29.	Crusher MCC room	RCC	180.0	5.65	3
30.	Gypsum, additive and coal storage shed	Steel structures	1452.0	6.2	-
31.	CCR & MCC room	RCC	1266.0	11.45	4
32.	Preheater building	RCC	1176.0	57.2	12
33.	Lime sludge storage shed	Steel structures	735.0	12	-

at R.S.No.803, 804, 805, 807, 808, 809, 810, 837, 841, 842, 843, 844 & 845 at Kagithapuram, Punjai Pugalur Village, Karur District subject to the following conditions and such other conditions as may be prescribed from time to time. This licence is valid for **ONE YEAR** from **27.09.2022 to 26.09.2023** and should be renewed on **27.09.2023**.

CONDITIONS

1. Human occupancy is not permitted on and above 18 meters.
2. Periodical maintenance should always be ensured to keep all fire protection equipment and systems in good working condition.
3. "Mock drill" should be periodically conducted. The date of conduct should be informed to the District Officer, Karur District well in advance to enable the team to make suggestions, if any.
4. Trained fire personnel should be available to operate the systems in case of any emergency.
5. All fire fighting equipment should always be kept in good working condition at all times.

6. Any erection of a permanent or temporary structure should be intimated to this Fire and Rescue Services Department.
7. With reference to air-conditioning it should not exceed the electricity board load on any account.
8. Available set back area open spaces on all sides should be maintained to withstand the weight of 45 tons of fire fighting vehicle.
9. House keeping / dumping of waste material any where should be avoided. Dust bins should be cleared everyday.
10. Emergency fire exit, door should open from the floor to staircase only and not the other way round. The door should be in red reflector & arrow marks should commensurate with the gradient of staircase.
11. Do's & don'ts in times of emergencies should be available in a laminated hanging pad or otherwise in the telephone operator's desk as well as in the CE or emergency in charge of the officer's desk.
12. Alternate staircase should be kept free without any obstruction.
13. All staircases should be kept open during office hours and should be kept usable at any point of emergency.
14. Fire order / contingency plan should be prepared and displayed in each floor. It should also contain the rescue team members name, designation and contact number.
15. As per section 3.2 of BIS 12459, 1988 – code of practice for fire safety in cable regularization, 1m transparent fire retardant coatings shall be applied to all cables at termination points in electrical panels and all cables inside the distribution boxes.

B.K. Ravi,
Director.

To:

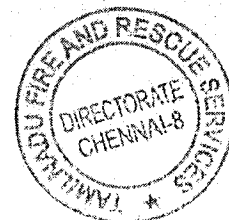
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Karur District – 639 136.

Copy to:

The Deputy Director, Fire and Rescue Services,
Central Region, Trichy.

//Forwarded by Order//

Dr. S. S. S. S. S.
Additional Director,
Fire and Rescue Services,
Tamil Nadu.





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LSFM/2010/05

28/5/10

To

The Executive Officer
Kagithapuram Town Panchayat
Kagithapuram,
Karur Dist

RPAD

Sir,

The Environmental Clearance for the proposed Lime Sludge and Fly ash Management 600 TPD Cement Plant of TNPL has been issued by M/s State Level Environment Impact Assessment Authority (SEIAA) TN vide its order dated 21/5/10.

A copy of the Environmental Clearance letter is enclosed.

This is for your kind information.

Thanking you,

Yours faithfully,
For TAMIL NADU NEWSPRINT AND PAPERS LTD

GENERAL MANAGER (OPERATIONS) CEMENT

28/5/10

LSFM/2010/05 dt 2015/10

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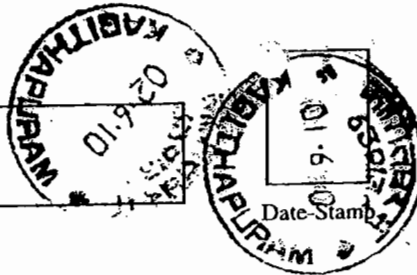
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