



**THE RAMCO CEMENTS LIMITED**



Kumarasamy Raja Nagar – 521457  
Jaggayyapet Mandal, Krishna District,  
Andhra Pradesh, India  
Phone: 08654 224400-04  
Fax: 08654 222352  
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RCL/PCB/44/2024-2025

30<sup>th</sup> September 2024

The Environmental Engineer,  
AP Pollution Control Board,  
Regional Office,  
Plot No. 41, Kanakadurga Officers Colony,  
Opp. SBH, Gurunanak Road,  
VIJAYAWADA – 520 008.

Dear Sir,

Sub: Submission of Environmental Statement in Form - V for Cement Plant, Thermal Power Plant & Waste Heat Recovery Plant for the Financial Year – 2023-2024 conducted by third party - Reg.

This is to submit that Point No. v of General Conditions - Statutory compliance - Corporate Environment Responsibility of Environmental Clearance Order No. J-11011/403/2006-IA-II (I) dated 18.12.2019 states that:

- Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

As part of this condition, environmental audit conducted by third party for Cement Plant, Thermal Power Plant & Waste Heat Recovery Plant for the Financial Year – 2023-2024. Please find enclosed herewith 2 copies of Environmental Statement in Form - V for Cement Plant, Thermal Power Plant & Waste Heat Recovery Plant for the Financial Year – 2023-2024 along with relevant enclosures.

This is for your kind information and records please.

Thanking you.

Yours faithfully,  
For The Ramco Cements Limited,

ASHISH KUMAR SRIVASTAVA  
President (Mfg.)

Encl.: As above.

# **ENVIRONMENTAL STATEMENT (FORM – V) FOR FINANCIAL YEAR 2023-2024**

For

## **CEMENT PLANT, THERMAL POWER PLANT & WASTE HEAT RECOVERY PLANT**

An

**QMS- IS/ISO 9001:2015,  
EMS- IS/ISO 14001:2015,  
OHSMS- IS/ISO 45001:2018,  
EnMS – ISO 50001:2018  
Certified Company**

of



**THE RAMCO CEMENTS LIMITED,  
KUMARASAMY RAJA NAGAR – 521 457,  
JAGGAIHPET (M),  
NTR DISTRICT, AP.**

By



**UNIVERSAL ENVIRO ASSOCIATES**

Plot No.28, Road No.1, Phase – 1,  
IDA Mallapur, Hyderabad – 500 076.

**ENVIRONMENTAL STATEMENT (FORM – V)**

(See rule 14)

**Environmental statement for the financial year ending the 31<sup>st</sup> March 2024**

## PART – A

1.	Name and address of the owner of the industry operation or process	:	<b>M/s. The Ramco Cements Limited</b> Kumarasamy Raja Nagar - 521 457, Jaggaiahpet Mandal, NTR Dt., A.P
	Industry operation or process	:	<ul style="list-style-type: none"> <li>• Clinker manufacturing</li> <li>• Cement manufacturing</li> <li>• Generation of power from coal based thermal power plant</li> <li>• Generation of power from waste heat recovery boilers</li> <li>• Generation of DG power</li> </ul>
2.	Industry category Primary-(STC Code) Secondary-(SIC Code)		
3.	Production capacity		Clinker – 4.685 Million TPA Cement – 3.65 Million TPA Thermal Power– 24 MW Waste Heat Recovery Power – 27 MW DG Power – 4 MW
4.	Year of Establishment		1986
5.	Date of the last environment audit report submitted	:	28 <sup>th</sup> September 2023

## PART – B

<b>Water and Raw Material Consumption</b>		
<b>i) Water consumption</b>	<b>4561.3</b>	KLD
Cement Plant Cooling, TPP Cooling, Boiler & Domestic	4561.3	KLD

Name of the product(s)*	Water consumption per unit of products		
	Unit	During the current financial year (2022-2023)	During the current financial year (2023-2024)
Cement	m <sup>3</sup> /Ton	0.9878	0.9069

**\* The clinker, cement & power production details are given in Annexure – I.**

**(ii) Raw material consumption:**

Sl. No.	Name of the raw material	Name of the product	Consumption of raw material (as dry basis), Tonne	
			During the previous financial year (2022-2023)	During the current financial year (2023-2024)
1	Limestone (from captive mines)	Clinker	49,35,574	56,83,857.6
2	Laterite High Grade		1,116.541	6292
3	Laterite Low Grade		50,181	51279.4
4	Iron Rich Laterite		2,64,780.459	3,01,049
4	Indian Coal		1,624.20	3,168.00
5	Imported Coal		67,415.72	2,96,298.60
6	Pet Coke (Indian or Imported)		2,89,926.28	1,77,351.67
7	Alternate Fuel		4433.98	3,732.38
8	Hazardous waste (solid)*		11880.77	5,176.76
9	Hazardous waste (liquid)		2435.19	917.95
10	Slag	1,15,669.00	73,648.00	
11	Fly ash	Cement	1,63,317.00	1,65,640.00
12	Gypsum		62,960.01	63,657.01
13	Imported Coal	Thermal Power	11,100.4	6,585.82
14	Indian Coal		85,050.87	81,065.47
15	Alternate Fuel		5,009.57	367.80

**\*Consumption of Hazardous waste (solid) in Tonne, including moisture loss.**

PART – C POLLUTION GENERATED (Parameter as Specified in the consent issued)				
Pollutants	Quantity of Pollutants Discharged (mass/day) 2023-2024	Concentrations of Pollutants in Discharges (mass/volume) 2023-2024	Prescribed Standards	Percentage of variation from prescribed standards with reasons
<b>a) Water</b>				
pH	Thermal Power Plant Effluent	7.71 - 7.98	5.5 – 9.0	Well within the prescribed limits
Total Dissolved Solids		980.3 mg/L		
Total Suspended Solids		41.1 mg/L	100 mg/L	
COD		63.7 mg/L		
BOD		23.8 mg/L	30 mg/L	
Oil & Grease		1.4 mg/L	10 mg/L	

pH	Sewage Treatment Plant Treated	7.76 - 7.99	5.5 – 9.0	Well within the prescribed limits
Total Dissolved Solids		625.7 mg/L		
Total Suspended Solids		22.5 mg/L	100 mg/L	
COD		38.2 mg/L		
BOD		8.5 mg/L	30 mg/L	
Oil & Grease		1.4 mg/L	10 mg/L	
pH	Auto Garage Oil & Grease Trap	7.68 - 7.99	5.5 – 9.0	Well within the prescribed limits
Total Dissolved Solids		903.1 mg/L		
Total Suspended Solids		69.7 mg/L	100 mg/L	
COD		133.8 mg/L		
BOD		44.4 mg/L	30 mg/L	
Oil & Grease		1.9 mg/L	10 mg/L	
<b>(b) Air</b>				
<b>i.</b>		<b>ii. Stack Monitoring</b>		
<b>PM</b>	Kiln - I Bag House	17.6 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	Well within the prescribed limits
	Coal Mill - I Bag House	9.2 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Cooler - I - ESP	15.2 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Kiln - II RABH	20.2 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Coal Mill - II Bag House	9.9 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Cooler - II - ESP	21.3 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Kiln - III Bag House	16.4 mg/Nm <sup>3</sup>	20 mg/Nm <sup>3</sup>	
	Coal Mill - III Bag House	14.8 mg/Nm <sup>3</sup>	20 mg/Nm <sup>3</sup>	
	Cooler - III - ESP	13.5 mg/Nm <sup>3</sup>	20 mg/Nm <sup>3</sup>	
	Cement Mill Separator Bag House	10.5 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Cement Mill Vent Bag Filter	8.9 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Slag Mill Bag House	11.8 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	JPM - Limestone Crusher Bag Filter	9.6 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
	Budawada - Limestone Crusher Bag Filter	10.4 mg/Nm <sup>3</sup>	30 mg/Nm <sup>3</sup>	
Thermal Power Plant ESPs	28.9 mg/Nm <sup>3</sup>	50 mg/Nm <sup>3</sup>		
<b>SO<sub>2</sub></b>	Kiln - I Bag House	14.9 mg/Nm <sup>3</sup>	100 mg/Nm <sup>3</sup>	Well within the prescribed limits
	Kiln - II RABH	23.4 mg/Nm <sup>3</sup>	100 mg/Nm <sup>3</sup>	
	Kiln - III Bag House	11.2 mg/Nm <sup>3</sup>	100 mg/Nm <sup>3</sup>	
	Thermal Power Plant ESPs	473.2 mg/Nm <sup>3</sup>	600 mg/Nm <sup>3</sup>	

NO <sub>x</sub>	Kiln - I Bag House	487.3 mg/Nm <sup>3</sup>	600 mg/Nm <sup>3</sup>	Well within the prescribed limits
	Kiln - II RABH	496.4 mg/Nm <sup>3</sup>	800 mg/Nm <sup>3</sup>	
	Kiln - III Bag House	449.0 mg/Nm <sup>3</sup>	600 mg/Nm <sup>3</sup>	
	Thermal Power Plant ESPs	262.2 mg/Nm <sup>3</sup>	450 mg/Nm <sup>3</sup>	
<b>iii.</b>	<b>iv. Ambient Air Quality Monitoring:</b>			
PM <sub>10</sub>	Near Temple	75.0 µg/m <sup>3</sup>	100 µg/m <sup>3</sup>	Well within the prescribed limits
PM <sub>2.5</sub>		31.7 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	
SO <sub>2</sub>		20.8 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	
NO <sub>x</sub>		24.6 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	
PM <sub>10</sub>	Near Slag Shed	67.3 µg/m <sup>3</sup>	100 µg/m <sup>3</sup>	Well within the prescribed limits
PM <sub>2.5</sub>		27.3 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	
SO <sub>2</sub>		18.2 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	
NO <sub>x</sub>		22.6 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	
PM <sub>10</sub>	Mines Office	70.0 µg/m <sup>3</sup>	100 µg/m <sup>3</sup>	Well within the prescribed limits
PM <sub>2.5</sub>		28.8 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	
SO <sub>2</sub>		20.3 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	
NO <sub>x</sub>		26.1 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	

The analysis data (carried out by MoEF&CC approved external monitoring agency) of treated waste water generated (Thermal Power Plant Effluent Treatment Plant Treated Effluent, Sewage Treatment Plant Treated Waste Water, Auto Garage Oil & Grease Trap Treated Waste Water) for the financial year 2023-2024 is narrated in Annexure – II, III & IV respectively. No deviation is observed (with respect to quality) for 3 Nos. of waste water sources viz., Thermal Power Plant Effluent Treatment Plant Treated Effluent, Sewage Treatment Plant Treated Waste Water, Auto Garage Oil & Grease Trap Treated Waste Water from prescribed standards in the financial year 2023-2024.

On-line Thermal Power Plant Effluent Treatment Plant Treated Effluent monitoring data is being transmitted to APPCB & CPCB websites. Consolidated data on online effluent monitoring data (monthly average) for the financial year 2023-2024 is enclosed as Annexure - V.

Details of month wise stack monitoring carried out in the financial year 2023-2024 (by MoEF&CC approved external monitoring agency) are enclosed as Annexure - VI. No deviation is observed (with respect to quality) for stack monitoring data from Prescribed Standards in the financial year 2023-2024.

13 Nos. of major stacks are equipped with online stack monitors. On-line stack monitoring data is being transmitted to APPCB & CPCB websites. Consolidated data on online stack monitoring data (monthly average) for the financial year 2023-2024 is enclosed as Annexure - VII.

Details of month wise ambient air quality monitoring carried out near to the plant premises in the financial year 2023-2024 (by MoEF&CC approved environmental monitoring agency) are enclosed as Annexure - VIII. Data on ambient air quality monitoring carried out in the nearby villages (9 locations) for the same period is enclosed in Annexure – IX. No deviation is observed (with respect to quality) for ambient air quality data (adjacent to plant & in surrounding villages) from Prescribed Standards in the financial year 2023-2024.

2 Nos. of continuous ambient air quality monitoring stations are installed. On-line ambient air quality monitoring data is being transmitted to APPCB website. Consolidated data on online continuous ambient air quality monitoring stations data (monthly average) for the financial year 2023-2024 is enclosed as Annexure - X.

Fugitive dust monitoring is being carried out at 16 locations across the plant. The fugitive dust monitoring data collected in the financial year 2023-2024 is enclosed as Annexure – XI.

**PART – D  
HAZARDOUS WASTES**

As specified under 1[Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2016]

Hazardous Waste	During the previous financial year (2022-2023)	During the current financial year (2023-2024)
Waste oil	Used within the premises. No disposal to outside agencies.	Used within the premises. No disposal to outside agencies.
Waste grease		
Waste lead acid batteries	62 Nos. to M/s. R.Ess Iron and Steel Pvt. Ltd.	980 kg to M/s Southern Power Industries
Waste Hi-chrome Grinding Media	No disposal to outside agencies.	No disposal to outside agencies.



- Form - 4 (copy submitted to APPCB) - Hazardous Waste generation / receipts and consumption / disposal details for plant for the financial year 2023-2024 is enclosed as Annexure - XII.
- Part of the waste oil / lubricants is used along with fresh grease for reclaimers.

The details of hazardous wastes co-processed in our cement plant kilns in the financial year 2023-2024 are:

1	<b>Quantity of waste received during the year:</b>	
(i)	Domestic sources:	For Cement Plant - Through APEMCL portal: <ul style="list-style-type: none"> <li>• Hazardous waste (solid) – 4958.81 Tonne</li> <li>• Hazardous waste (liquid) – 903.14 Tonne</li> </ul>
(ii)	Imported (if applicable):	Not applicable
2	Quantity in stock at the beginning of the year:	For Cement Plant: <ul style="list-style-type: none"> <li>• Hazardous waste (solid) – 217.95 Tonne</li> <li>• Hazardous waste (liquid) – 30.07 Tonne</li> </ul>
3	Quantity recycled or co-processed or used:	Co-processed in Cement Kilns: <ul style="list-style-type: none"> <li>• Hazardous waste (solid) – 5176.76 Tonne (including moisture loss)</li> <li>• Hazardous waste (liquid) – 917.95 Tonne</li> </ul>
4	Quantity of products dispatched (wherever applicable):	Not applicable
5	Quantity of waste generated:	Not applicable
6	Quantity of waste disposed:	Not applicable
7	Quantity re-exported (whether applicable):	Not applicable
8	Quantity in storage at the end of the year:	For Cement Plant: <ul style="list-style-type: none"> <li>• Hazardous waste (solid) – 0.0 Tonne</li> <li>• Hazardous waste (liquid) – 15.26 Tonne</li> </ul>

**Note: All these materials are received through APEMCL portal, from the sources located within Andhra Pradesh.**

**PART – E  
SOLID WASTES**

	During the previous financial year (2022-2023)	During the current financial year (2023-2024)
<b>(a) From process</b>	No solid waste generated	No solid waste generated
<b>(b) From pollution control facility</b>		
From Cement Plant*	Not quantified. Dust collected from cement plant pollution control equipments is being totally recycled in the respective circuits to make it as a part of the product of the respective section.	
Fly Ash from Thermal Power plant**	36,620 Tonne	75,425 Tonne
Sludge Cake from STP#	15.0 m <sup>3</sup>	2.0 m <sup>3</sup>
Sludge & Top Layers from ETP#	0 Tonne	0 Tonne
Vermi-compost from colony garbage <sup>§</sup>	3.0 Tonne	50.0 Tonne
<b>(c) (1) Quantity recycled or re-utilized within the unit</b>		
From Cement Plant*	Total recycled. Dust collected from cement plant pollution control equipments is being totally recycled in the respective circuits to make it as a part of the product of the respective section.	
Fly Ash from Thermal Power plant**	36,620 Tonne	75,425 Tonne
Sludge Cake from STP##	15.0 m <sup>3</sup>	2.0 m <sup>3</sup>
Sludge & Top Layers from ETP##	0 Tonne	0 Tonne
Vermi-compost from colony garbage <sup>§</sup>	2.0 Tonne	20.0 Tonne
(2) Sold		
MS and other metal scrap	645 Tonne	1834.5 Tonne
(3) Disposed		

\* Thus there is no solid waste generation from cement plant.

\*\* Fly ash collected from captive TPP pollution control equipment is being totally used in cement plant.

# Dried sludge cake from STP and Sludge & Top Layer from ETP of TPP are used as manure for greenbelt, in place of chemical fertilizers.

§ Vermi-composting for colony garbage is being used for greenbelt activities as manure, in place of fertilizers.

In the financial year 2023-2024, we have utilized the following solid / non-hazardous wastes as alternate fuel in our plant brought out from various sources, to conserve the natural resources:

<b>S No.</b>	<b>Name of Alternate Fuel received</b>	<b>Source / Industry</b>	<b>Procured Quantity, MT</b>
1	Chilli Spent	M/s. Chenguang Bio Tech (India) Pvt. Ltd., Khammam	396.22
2	Coal Dust	M/s. Planet Energys, Hyderabad	9890.86
3	Saw Dust	M/s. Planet Energys, Hyderabad	8.86
<b>Total</b>			<b>10,295.94</b>

#### **PART – F**

**(Please specify the characteristics in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes**

<b>Type of waste</b>	<b>Quantity generated in 2023-2024</b>	<b>Disposal practice</b>
Dust collected from cement plant pollution control equipment	Total recycled	Is being totally recycled / re-utilized in the respective circuits to make it as a part of the product of the respective section
Fly ash from TPP	75425 Tonne	Is being totally used in cement plant.
Top & Bottom Sludge collected from TPP ETP	0.0 Tonne	Is being used as manure in greenbelt activities, in place of chemical fertilizers (if generated).
Sludge collected from STP	2 m <sup>3</sup>	Is being used as manure in greenbelt activities, in place of chemical fertilizers.
Colony garbage	50 Tonne of compost	By Vermi-composting and compost is being used for greenbelt activities as manure, in place of chemical fertilizers.
Kitchen waste from colony	Not quantified	Kitchen waste is being composted in bio-gas plant. The generated bio-gas is used in industrial canteen, to partially replace the consumption of LPG.
MS and other metal scrap	1834.5 Tonne	Is being sold to local vendors
E-waste from plant & mines	IT waste – 0.1 Tonne Instrumentation waste – 0.68 Tonne	Is being disposed to APPCB authorized agencies. Returns are being submitted annually. Copy of the E-waste returns for the financial year 2023-2024 is enclosed as Annexure – XIII. Total quantity by the end of FY 2023-2024 are: Instrumentation waste – 0.249 Tonne IT waste – 1.60732 Tonne

Hazardous waste – Waste oil & waste grease	No waste oil & waste grease disposed to external agencies.	Waste oil along with fresh fuel is being used for kiln firing while light up & waste grease for reclaimer lubrication. Excess waste oil & waste grease are sold to APPCB authorized agents. Copy of the hazardous waste returns for the financial year 2023-2024 is enclosed as Annexure – XII.
Hazardous waste – Used hi-chrome grinding media	No waste oil & waste grease disposed to external agencies.	Waste oil along with fresh fuel is being used for kiln firing while light up & waste grease for reclaimer lubrication. Excess waste oil & waste grease are sold to APPCB authorized agents. Returns are being submitted annually to AP Pollution Control Board. Copy of the hazardous waste returns for the financial year 2023-2024 is enclosed as Annexure – XII.
Hazardous waste – waste lead acid batteries	980 kg	Waste lead acid batteries are being disposed to the supplier on exchange basis or to APPCB authorized agency (M/s Southern Power Industries). Returns are being submitted annually to AP Pollution Control Board. Copy of the hazardous waste returns for the financial year 2023-2024 is enclosed as Annexure – XII.
Plastic waste collected from colony, mines and plant	14.01 Tonne	Being fired in the kilns.
Bio-medical waste from OHC	Yellow – 205.277 kg Red – 10.368 kg White – 1.858 kg Blue – 41.015 kg	Operating Occupational Health Centre (OHC) to provide basic first aid facilities within the premises. Bio-medical waste from this OHC is being regularly collected by APPCB authorized agent, M/s Safenviron Bio-Medical Treatment Plant for onward treatment. The agency collects the bio-medical waste on 48-hour basis. Returns are being submitted annually (for the calendar year) to AP Pollution Control Board. Copy of Bio-Medical Annual Returns submitted for the calendar year 2023 is enclosed as Annexure – XIV.

## PART - G

### **Impact of the pollution control measures taken on concentration of natural resources and on the cost of production**

- All the surrounding areas are kept free from pollution.
- The cost of power consumed for operation of various pollution control equipment operated in cement plant & thermal power plant in the financial year 2023-2024 (air & water pollution equipment) is Rs. 895.81 lakh against Rs. 1104.77 lakh in financial year 2022-2023 i.e., Rs. 48.79/Tonne of cement in the financial year 2023-2024 against Rs. 64.45/Tonne of cement in the financial year 2022-2023.

- Rs. 97.44 lakh incurred towards capital cost for various pollution control measures for cement plant, thermal power plant and mines in the financial year 2023-2024 against Rs. 603.50 lakh investment for capital cost in the financial year 2022-2023.
- Total environmental protection expenditure made in the financial year 2023-2024 (for cement plant, thermal power plant and mines) is Rs. 3101.52 lakh against Rs. 2579.04 lakh in financial year 2022-2023, i.e., nearly Rs. 168.94/Tonne of cement in financial year 2023-2024 against Rs. 150.46/Tonne of cement in financial year 2022-2023.
- The expenditure details for Environment Protection covering various measures carried out in the financial year 2023-2024 are enclosed as Annexure - XV.
- An amount of Rs. 1611.20 lakh is allocated towards Environment Management Activities for the financial year 2024-2025 towards capital as well as recurring costs for plant & mines and being spent.

## **PART – H**

### **Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution**

- The following air pollution control equipment are in operation (by the end of financial year 2023-2024) in the present operating cement plant & thermal power plant to control process emissions as well as fugitive emissions from all vulnerable sources, etc.:
  - 148 Nos. of RABH / Bag Houses / Bag Filters
  - 5 Nos. of ESPs
  - 6 Nos. of Water Fogging Systems
- 3 Nos. of bag filters are erection and commissioning stage. These will be commissioned along with associated process equipment.
- All the air pollution control equipment for cement plant Line – I and Line – II are designed for particulate emission level of 30 mg/Nm<sup>3</sup>, whereas for cement plant Line – III are designed for 20 mg/Nm<sup>3</sup>.

- As our pyritic sulphur in limestone is less than 0.25%, our SO<sub>2</sub> standard for Kiln – I, II & III is 100 mg/Nm<sup>3</sup>. The sulphur content is absorbed in clinker and the emission levels are well within the limit.
- To meet the NO<sub>x</sub> standard of 600 mg/Nm<sup>3</sup>, 800 mg/Nm<sup>3</sup> & 600 mg/Nm<sup>3</sup> respectively for Kiln – I, II & III respectively, low NO<sub>x</sub> burners and low NO<sub>x</sub> calciners are installed.
- All the air pollution control equipment for TPP are designed for particulate emission level of 50 mg/Nm<sup>3</sup>, SO<sub>2</sub> standard of 600 mg/Nm<sup>3</sup> and NO<sub>x</sub> standard of 450 mg/Nm<sup>3</sup> respectively.
- To control the process emissions & fugitive emissions, some of the bags (of bag houses and bag filters) are replaced in the air pollution control equipment. The cost incurred for this replacement in the financial year 2023-2024 is Rs. 330.19 lakh.
- The dust collected from APCE is being totally recycled to the respective process / storage facility.
- All conveyers are covered with GI sheets.
- 3 Nos. of road sweepers, 2 Nos. of industrial vacuum cleaners and 1 No. of mobile water sprinkler are in operation to maintain clean environment.

**PART - I**  
**Any other particulars for improving the quality of the environment**

- Detailed environmental protection measures are enclosed as Annexure - I.
- Various Management Systems are being implemented in our premises, viz.,

<b>Management System</b>	<b>Implemented from</b>
Quality Management System - IS / ISO 9001:2015	1996
Environmental Management System - IS / ISO 14001:2015	2006
Occupational Health & Safety Management System – IS / ISO 45001:2018	2010
Energy Management System - ISO 50001:2018	2014
Work Place Management - 5S Certification	2016

## ENVIRONMENTAL PROTECTION MEASURES

Ramco is a vibrant group of Companies with manufacturing activities in Cement, Textiles, Fibre-Cement Products, Wind Energy, Software Products, Surgical Dressings, Ready-Mix Concrete and Dry Mortar Plants.

The Ramco Cements Limited is a unit of the Ramco Group which has been growing steadily right from its inception with present capacity 23.05 Million Tonnes / Annum of cement. RCL, which has always been striving for Total Quality Management, possesses International Management System Certificates IS/ISO 9001:2015, IS/ISO 14001:2015, IS/ISO 45001:2018, ISO 50001:2018 and 5-S Workplace Management System.

The KSR Nagar plant was presented with an Award in recognition of practicing 'Cleaner Production Measures' from AP Pollution Control Board, Hyderabad for the year 2011-2012 on the eve of World Environment Day – 05<sup>th</sup> June 2012. Andhra Pradesh Pollution Control Board recommended for 'Better Environmental Practices Award - First in Cement Industry Category for the year 2016-2017 in the State of Andhra Pradesh'.

### PRODUCTION DETAILS:

	Capacity	Production in the Financial Year 2022-2023	Production in the Financial Year 2023-2024
Clinker*	46,85,000 TPA	3749629 Tonne	4285090.11 Tonne
Cement	36,50,000 TPA	1714047 Tonne	1835842.26 Tonne
Coal Based Thermal Power	24 MW	1310.04 Lakh units	1293.88 Lakh units
Waste Heat Recovery Power	27 MW	1630.43 Lakh units	1887.50 Lakh units

\* Part of the clinker produced is used in cement manufacturing within the premises and the balance clinker is exported to other cement grinding units.

### AIR:

#### Air Pollution Control Measures:

- The following air pollution control equipment are in operation (by the end of financial year 2023-2024) in the present operating cement plant & thermal power plant to control process emissions as well as fugitive emissions from all vulnerable sources like transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas, etc.:
  - 148 Nos. of RABH / Bag Houses / Bag Filters
  - 5 Nos. of ESPs
  - 6 Nos. of Water Fogging Systems
- 3 Nos. of bag filters are erection and commissioning stage. These will be commissioned along with associated process equipment.

- In the event of pollution control equipment not working, the respective unit(s) being stopped automatically in phased manner with associated interlocks.
- All the air pollution control equipment for cement plant Line – I and Line – II are designed for particulate emission level of 30 mg/Nm<sup>3</sup>, whereas for cement plant Line – III are designed for 20 mg/Nm<sup>3</sup>.
- As our pyritic sulphur in limestone is less than 0.25%, our SO<sub>2</sub> standard for Kiln – I, II & III is 100 mg/Nm<sup>3</sup>. The sulphur content is absorbed in clinker and the emission levels are well within the limit.
- To meet the NO<sub>x</sub> standard of 600 mg/Nm<sup>3</sup>, 800 mg/Nm<sup>3</sup> & 600 mg/Nm<sup>3</sup> respectively for Kiln – I, II & III respectively, low NO<sub>x</sub> burners and low NO<sub>x</sub> calciners are installed.
- All the air pollution control equipment for TPP are designed for particulate emission level of 50 mg/Nm<sup>3</sup>, SO<sub>2</sub> standard of 600 mg/Nm<sup>3</sup> and NO<sub>x</sub> standard of 450 mg/Nm<sup>3</sup> respectively.
- To control the process emissions & fugitive emissions, some of the bags (of bag houses and bag filters) are replaced in the air pollution control equipment. The cost incurred for this replacement in the financial year 2023-2024 is Rs. 330.19 lakh.
- The dust collected from APCE is being totally recycled to the respective process / storage facility.

#### Online Stack Monitoring:

13 Nos. of major stacks are equipped with online stack monitors. On-line monitoring data is being transmitted to APPCB & CPCB websites. The details are:

Parameter	Location of online stack monitoring instrument	Present equipment		Details of earlier equipment, if any – Make / Year of installation
		Make of	Year of installation	
PM	Kiln – I Stack	IFI	2018	Forbes Marshall / 2010
	Kiln – II Stack	IFI	2018	Durag / 2009
	Kiln – III Stack	Sick	2021	
	Cooler - I Stack	Sick	2023	IFI / 2017 & Durag / 2009
	Cooler – II Stack	Sick	2023	IFI / 2018 & Durag / 2009
	Cooler - III Stack	Sick	2021	
	Coal Mill – I Stack	IFI	2017	Durag / 2009
	Coal Mill – II Stack	IFI	2016	Durag / 2009
	Coal Mill – II Stack	Sick	2021	
	Cement Mill Vent Stack	IFI	2016	Durag / 2009
	Cement Mill Separator Stack	IFI	2018	Durag / 2009
	Slag Mill Stack	IFI	2018	Forbes Marshall / 2012 & Baltec / 2005
Thermal Power Plant Stack	IFI	2017	Forbes Marshall / 2008	
SO <sub>2</sub>	Kiln – I Stack	ABB	2017	
	Kiln – II Stack	ABB	2015	
	Kiln – III Stack	ABB	2021	
	Thermal Power Plant Stack	ABB	2015	



NOx	Kiln – I Stack	ABB	2017	
	Kiln – II Stack	ABB	2015	
	Kiln – III Stack	ABB	2021	
	Thermal Power Plant Stack	ABB	2015	

Remote calibration systems (of M/s Glens make) are installed for SO<sub>2</sub> and NO<sub>x</sub> analysers for Kiln – I, Kiln – II & Thermal Power Plant stacks in the year 2018 and for Kiln – III in the year 2021.

On-line stack monitoring data is being transmitted to APPCB & CPCB websites. Consolidated data on online stack monitoring data (monthly average) for the financial year 2023-2024 is enclosed as Annexure - VII.

#### Stack Monitoring by MoEF&CC Approved External Agency:

Major stacks are being monitored by MoEF&CC approved external agency on monthly basis and reports are being submitted to the APPCB. Compiled data on stack monitoring in the financial year 2023-2024 is enclosed in Annexure - VI. Compiled data of stack monitoring in the financial year 2023-2024 is as follows:

S. No.	Stack Attached to	Norm	Average values, mg/Nm <sup>3</sup>	
			Financial Year 2022-2023	Financial Year 2023-2024
<b>I.</b>	<b>PM Concentration</b>			
1	Kiln - I Bag House	30	17.6	17.6
2	Coal Mill - I Bag House	30	9.5	9.2
3	Cooler - I - ESP	30	16.2	15.2
4	Kiln - II RABH	30	23.3	20.2
5	Coal Mill - II Bag House	30	10.6	9.9
6	Cooler - II - ESP	30	15.6	21.3
7	Kiln - III Bag House	20	14.3	16.4
8	Coal Mill - III Bag House	20	13.5	14.8
9	Cooler - III - ESP	20	12.3	13.5
10	Cement Mill Separator Bag House	30	15.2	10.5
11	Cement Mill Vent Bag Filter	30	12.0	8.9
12	Slag Mill Bag House	30	16.0	11.8
13	JPM - Limestone Crusher Bag Filter	30	9.0	9.6
14	Budawada - Limestone Crusher Bag Filter	30	Not commissioned	10.4
15	Thermal Power Plant ESPs	50	24.5	28.9
<b>II.</b>	<b>SO<sub>2</sub> Concentration</b>			
1	Kiln - I Bag House	100	34.0	14.9
2	Kiln - II RABH	100	28.2	23.4
3	Kiln - III Bag House	100	35.1	11.2
4	Thermal Power Plant ESPs	600	449.2	473.2

S. No.	Stack Attached to	Norm	Average values, mg/Nm <sup>3</sup>	
			Financial Year 2022-2023	Financial Year 2023-2024
<b>III.</b>	<b>NOx Concentration</b>			
1	Kiln - I Bag House	600	442.8	487.3
2	Kiln - II RABH	800	507.7	496.4
3	Kiln - III Bag House	600	429.1	449.0
4	Thermal Power Plant ESPs	450	321.1	262.2

### Continuous Ambient Air Quality Monitoring:

2 Nos. of Continuous ambient air quality monitoring stations are installed. On-line monitoring data is being transmitted to APPCB website. The details of Online Continuous Ambient Air Quality Monitoring equipment are:

Location of continuous ambient air monitoring instrument	Parameter	Make of present equipment	Year of installation	Details of earlier equipment, if any
Time Office	PM <sub>10</sub>	Metone	2013	
	PM <sub>2.5</sub>	Metone	2013	
	SO <sub>2</sub>	Horiba	2015	
	NOx	Horiba	2015	
Mines Office	PM <sub>10</sub>	Metone	2020	DKK, Japan installed in the year 2010 at Time Office is shifted in the year 2013.
	PM <sub>2.5</sub>	Metone	2014	
	SO <sub>2</sub>	Horiba	2015	
	NOx	Horiba	2015	

Installation of 2 Nos. of Continuous Ambient Air Quality Monitoring Stations is under progress.

On-line ambient air quality monitoring data is being transmitted to APPCB website. Consolidated data on online continuous ambient air quality monitoring stations data (monthly average) for the financial year 2023-2024 is enclosed as Annexure - X.

### Ambient Air Quality Monitoring by MoEF&CC Approved External Agency – near to the plant boundary:

Ambient Air Quality is being monitored by MoEF&CC approved external agency on monthly basis at 3 locations (near to the boundary of the plant in 3 directions of the plant) and reports are being submitted to the APPCB. Compiled data on Ambient Air Quality monitoring in the financial year 2023-2024 is enclosed in Annexure - VIII.

Pollution Type	Unit	Pollution Board Norms	Near Temple		Near Slag Shed		Mines Office	
			2022-2023	2023-2024	2022-2023	2023-2024	2022-2023	2023-2024
PM <sub>10</sub>	µg/m <sup>3</sup>	100	68.3	75.0	65.5	67.3	65.4	70.0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	60	28.3	31.7	28.2	27.3	30.9	28.8
SO <sub>2</sub>	µg/m <sup>3</sup>	80	17.1	20.8	16.8	18.2	16.8	20.3
NO <sub>x</sub>	µg/m <sup>3</sup>	80	22.1	24.6	21.9	22.6	22.1	26.1

**Ambient Air Quality Monitoring by MoEF&CC Approved External Agency – nearby villages:**

Data on ambient air quality monitoring carried out in the nearby villages (9 locations) in the financial year 2023-2024 is enclosed in Annexure – IX. Average values of month wise ambient air quality monitoring carried out near to the plant are as follows:

Description	Average concentration of pollution type, µg/m <sup>3</sup>									
	Financial Year 2022-2023					Financial Year 2023-2024				
	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO
Pollution Board Norms	100	60	80	80	2000	100	60	80	80	2000
Dharmavarapupadu Thanda	56.0	22.70	14.70	17.40	239.9	58.30	23.59	16.32	18.93	244.75
Jayanthipuram Village	55.20	22.30	14.40	17.30	249.10	58.98	23.86	15.48	18.38	249.08
Chillakallu Village	55.80	22.60	14.40	17.30	247.50	58.85	23.80	15.37	18.27	244.46
K Agraharam Village	54.9	22.3	14.80	17.50	257.80	56.48	22.89	14.98	17.73	256.08
Jaggayyapet	56.10	22.90	14.40	17.10	254.70	58.60	25.01	15.31	18.01	244.13
Budawada Village	57.20	23.10	14.20	16.90	261.00	59.02	23.77	14.98	17.68	261.83
Vedadri Village	55.10	22.20	14.30	16.80	251.50	60.85	32.88	15.04	17.59	260.67
Pochampalli Village	54.80	22.30	14.20	16.80	247.60	58.23	32.81	21.15	18.00	263.29
Ravirala Village	53.30	21.70	14.40	17.30	244.40	60.00	24.43	15.01	17.96	262.00

Fugitive dust monitoring is being carried out at 16 Nos. of locations across the plant. The fugitive dust monitoring data collected in the financial year 2023-2024 is enclosed as Annexure – XI.

**WATER:**

**Water Requirement:**

- Mine seepage water is the source for water requirements.
- Mine seepage water is being allowed to settle in mine sump. The sump outlet water is used for:
  - cement plant process requirements
  - thermal power plant & waste heat recovery system plant process requirements,
  - water sprinkling purpose,
  - greenbelt purpose,
  - domestic water requirements, etc.
- Panchayat Raj & Rural Development Department (nodal agency for Central Ground Water Dept) vide Lr. No. PRR05-11028/45/2018-SLNA-GIS-CORD dated 13.11.2021 (which is valid up to 12.11.2024) accorded permission for mine seepage water withdrawal @ 7000 m<sup>3</sup>/day, for internal use.
- By considering 365 days of operation of plant, total water requirement for Cement Plant, Thermal Power Plant and for Domestic Purposes is 4561.3 m<sup>3</sup>/day in the financial year

2023-2024 against 4638.7 m<sup>3</sup>/day in the financial year 2022-2023. Total water requirement for Cement Plant, Thermal Power Plant and for Domestic Purposes is 0.9069 m<sup>3</sup>/Tonne of cement produced in the financial year 2023-2024 against 0.9878 m<sup>3</sup>/Tonne of cement produced in the financial year 2022-2023.

- By considering 305 days of operation of mines, the total water requirement for Captive Mines is 382.0 m<sup>3</sup>/day in the financial year 2023-2024 against 513.0 m<sup>3</sup>/day in the financial year 2022-2023.
- Total water requirement for Cement Plant, Thermal Power Plant, Captive Mines and for Domestic Purposes is 4943.3 m<sup>3</sup>/day in the financial year 2023-2024 against 5151.7 m<sup>3</sup>/day in the financial year 2022-2023.

#### **Potable Water Supply System:**

Reverse Osmosis (RO) plant is located at colony and purified water is being distributed to all offices, mines and colony houses. The analysis reports of RO plant inlet and outlet samples in the financial year 2023-2024 are enclosed as Annexure - XVI.

#### **Waste Water Treatment processes:**

- No process effluent generation from cement manufacturing.
- TPP effluent is being treated in effluent treatment plant (neutralization tank). The wastewater from boiler blow down, DM plant regeneration, UF & RO rejects and cooling tower blow down of TPP are being neutralized in this neutralization tank.
- Sewage treatment plant is in operation to treat domestic sewage from colony, plant, canteen and offices.
- Auto garage wash water is being treated separately at Oil & Grease Trap.

#### **Waste Water Quality Analysis by MoEF&CC Approved External Agency:**

- 3 Nos. of treated outlet samples from are being analysed on monthly basis by MoEF&CC approved external agency and reports are being submitted to the Board regularly:
  - Sewage Treatment Plant (located at colony to treat sewage from plant & colony)
  - Effluent Treatment Plant (to treat Thermal Power Plant effluents)
  - Auto Garage Oil & Grease Trap.
- The analysis data (for the financial year 2023-2024) is narrated in Annexure – II, III & IV respectively.

Average values of month wise outlet samples analysis of TPP effluent treatment plant, sewage treatment plant and auto garage oil & grease trap are as follows:

#### **(i) Thermal Power Plant Effluent Treatment Plant Treated Effluent:**

Pollution Type	Unit	Pollution Board Norms	Average Value / Range (2022-2023)	Average Value / Range (2023-2024)
p <sup>H</sup>		5.5 - 9.0	7.69 - 7.82	7.71 - 7.98
TDS	mg/L	2100	940.4	980.3
TSS	mg/L	100	35.1	41.1

COD	mg/L	250	64.7	63.7
BOD	mg/L	100	23.7	23.8
O & G	mg/L	10	1.6	1.4

(ii) Sewage Treatment Plant Treated Waste Water:

Pollution Type	Unit	Pollution Board Norms	Average Value / Range (2022-2023)	Average Value / Range (2023-2024)
p <sup>H</sup>		5.5 - 9.0	7.58 - 7.79	7.76 - 7.99
TDS	mg/L	2100	637.01	625.7
TSS	mg/L	100	24.6	22.5
COD	mg/L	250	35.0	38.2
BOD	mg/L	100	8.2	8.5
O & G	mg/L	10	1.6	1.4

(iii) Auto Garage Oil & Grease Trap Treated Waste Water:

Pollution Type	Unit	Pollution Board Norms	Average Value / Range (2022-2023)	Average Value / Range (2023-2024)
p <sup>H</sup>		5.5 - 9.0	7.68 - 7.99	7.68 - 7.99
TDS	mg/L	2100	939.3	903.1
TSS	mg/L	100	75.7	69.7
COD	mg/L	250	137.6	133.8
BOD	mg/L	100	43.0	44.4
O & G	mg/L	10	2.5	1.9

#### Online Effluent Quality Analysis:

1 No. of online effluent quality monitoring station is installed at thermal power plant effluent treatment plant outlet. On-line monitoring data is being transmitted to APPCB & CPCB websites. The details of online effluent quality monitoring station are:

Location of online effluent quality monitoring station	Parameter	Make of present equipment	Year of installation
Thermal Power Plant – Effluent Treatment Plant	pH	Daeyoon	2019
	Temperature	Daeyoon	2019
	TSS	Daeyoon	2019

On-line effluent monitoring data is being transmitted to APPCB & CPCB websites. Consolidated data on online effluent monitoring data (monthly average) for the financial year 2023-2024 is enclosed as Annexure - V.

#### Water Level Data:

Water levels are regularly monitored through piezometers on regular basis at 4 Nos. of mining leases. The location details are as follows:

Name of the Mine	No. of Piezometers		
	Manual	Automatic	Total
Jayanthipuram Limestone Mine (North Band)	3 Nos.	1 No	4 Nos.
Jayanthipuram Limestone Mine (South Band)	1 No	2 Nos.	3 Nos.
Ravirala Limestone Mine (RF)	1 No.	3 Nos.	4 Nos.
Ramco Budawada Limestone Mine(RF)	3 Nos.	---	3 Nos.

Details of these piezometers and data on water levels collected in the financial year 2023-2024 is enclosed as Annexure – XVII.

### **Water Conservation and Utilization of Treated Effluent / Sewage:**

Various measures initiated to conserve water reserves are:

- Water collected in mine pits is only being used for cement plant, thermal power plant, waste heat recovery boilers, mines and for domestic purposes. No ground water is being used.
- 48 Nos. of rain water harvesting structures are made to recharge the ground water in the colony by March 2024. 4 Nos. of rain water harvesting structures are made to recharge the ground water in the plant by March 2024. The locations of these pits are listed in Annexure - XVIII.
- Part of mine seepage water is supplied for agricultural fields (nearly 120 acre) in the nearby areas, after settling in settling ponds.
- To maintain 'zero discharge', treated effluent / sewage utilization is as follows:

Source	Utilized at
TPP effluents are being neutralized in neutralization tank	<ul style="list-style-type: none"> <li>○ Partially for cement plant process</li> <li>○ Water sprinkling purpose</li> <li>○ Greenbelt</li> <li>○ Excess treated waste water, if any, is being passed to the artificial ponds (about 0.5 ha &amp; 0.15 ha area) in Jayanthipuram Limestone Mine (North band) to uplift the water table nearby area</li> </ul>
Sewage treatment plant is in operation to treat domestic sewage	<ul style="list-style-type: none"> <li>○ Greenbelt (by pumping into elevated tank and then by gravity to the nearby plantation area)</li> <li>○ Water sprinkling purpose</li> </ul>
Auto garage wash water is being treated at Oil & Grease Trap	<ul style="list-style-type: none"> <li>○ Greenbelt</li> </ul>
RO plant outlet	<ul style="list-style-type: none"> <li>○ Greenbelt</li> </ul>

### **NOISE:**

RCL is regularly monitoring noise levels internally. Ear plugs / muffs are provided to the concerned employees, who are working at high noisy areas.

Noise level data collected in the financial year 2023-2024 is enclosed as Annexure - XIX.

### **OCCUPATIONAL HEALTH:**

Occupational health check-ups are being carried out for newly joined employees at the time of joining into the organization and occupational health surveillance programme is carried out for all the employees regularly. Full-fledged occupational health centre is established and services are being rendered by qualified occupational health specialist.

Occupational health checkup at the time of recruitment is being carried for all the employees as per Mines Rules, with the following tests:

- Lung function test
- ECG
- Chest X-ray
- Blood analysis test
- Urine analysis test
- Audiometry
- Checking colour blindness
- Stool Analysis
- Sputum (Optional)

The employees who are working at the time of initiation of this programme are covered for these tests. If any person failed in this health checkup, was not recruited. Like so, a baseline data on the health status of workmen in the Pre-recruitment stage was established. The same is being repeated periodically to update and to take action accordingly.

Occupational health surveillance on regular basis is being carried for all the employees, with the following tests:

- Clinical examination including Neurological assessment
- Lung function test
- ECG
- Chest X-ray
- Blood analysis test
- Urine analysis test
- Audiometry
- Checking colour blindness

If any person failed in this health checkup, he will be shifted / transferred to non-hazardous activities. Till now, no such case is observed.

Occupational Health Centre (with qualified Occupational Health Specialist) is established with the following facilities:

- X-ray
- ECG
- Spirometry (lung function test)
- Audiometry
- Semi-auto analyser to carryout bio-chemical tests
- Clinical lab for micro-biological tests (including sputum test)
- Checking colour blindness
- Dental chair
- Ambulance

First aid boxes are made available at various working areas of the plant for immediate treatment. First aid training is imparted to the selected employees regularly. The list of first aid members is being displayed at strategic places.

#### WASTE HANDLING & CLEANER PRODUCTION PRACTICES:

Type of waste	Quantity generated in 2023-2024	Disposal practice
Dust collected from cement plant pollution control equipment	Total recycled	Is being totally recycled / re-utilized in the respective circuits to make it as a part of the product of the respective section
Fly ash from TPP	75425 Tonne	Is being totally used in cement plant.
Top & Bottom Sludge collected from TPP ETP	0.0 Tonne	Is being used as manure in greenbelt activities, in place of chemical fertilizers (if generated).
Sludge collected from STP	2 m <sup>3</sup>	Is being used as manure in greenbelt activities, in place of chemical fertilizers.
Colony garbage	50 Tonne of compost	By Vermi-composting and compost is being used for greenbelt activities as manure, in place of chemical fertilizers.
Kitchen waste from colony	Not quantified	Kitchen waste is being composted in bio-gas plant. The generated bio-gas is used in industrial canteen, to partially replace the consumption of LPG.
MS and other metal scrap	1834.5 Tonne	Is being sold to local vendors
E-waste from plant & mines	IT waste – 0.1 Tonne Instrumentation waste – 0.68 Tonne	Is being disposed to APPCB authorized agencies. Returns are being submitted annually. Copy of the E-waste returns for the financial year 2023-2024 is enclosed as Annexure – XIII. Total quantity by the end of FY 2023-2024 are: Instrumentation waste – 0.249 Tonne IT waste – 1.60732 Tonne
Hazardous waste – Waste oil & waste	No waste oil & waste grease	Waste oil along with fresh fuel is being used for kiln firing while light up & waste grease for



grease	disposed to external agencies.	reclaimer lubrication. Excess waste oil & waste grease are sold to APPCB authorized agents. Copy of the hazardous waste returns for the financial year 2023-2024 is enclosed as Annexure – XII.
Hazardous waste – Used hi-chrome grinding media	No waste oil & waste grease disposed to external agencies.	Waste oil along with fresh fuel is being used for kiln firing while light up & waste grease for reclaimer lubrication. Excess waste oil & waste grease are sold to APPCB authorized agents. Returns are being submitted annually to AP Pollution Control Board. Copy of the hazardous waste returns for the financial year 2023-2024 is enclosed as Annexure – XII.
Hazardous waste – waste lead acid batteries	980 kg	Waste lead acid batteries are being disposed to the supplier on exchange basis or to APPCB authorized agency (M/s Southern Power Industries). Returns are being submitted annually to AP Pollution Control Board. Copy of the hazardous waste returns for the financial year 2023-2024 is enclosed as Annexure – XII.
Plastic waste collected from colony, mines and plant	14.01 Tonne	Being fired in the kilns.
Bio-medical waste from OHC	Yellow – 205.277 kg Red – 10.368 kg White – 1.858 kg Blue – 41.015 kg	Operating Occupational Health Centre (OHC) to provide basic first aid facilities within the premises. Bio-medical waste from this OHC is being regularly collected by APPCB authorized agent, M/s Safenviron Bio-Medical Treatment Plant for onward treatment. The agency collects the bio-medical waste on 48-hour basis. Returns are being submitted annually (for the calendar year) to AP Pollution Control Board. Copy of Bio-Medical Annual Returns submitted for the calendar year 2023 is enclosed as Annexure – XIV.

### Co-processing:

The details of hazardous wastes co-processed in our cement plant kilns in the financial year 2023-2024 are:

1	Quantity of waste received during the year:	
(i)	Domestic sources:	For Cement Plant - Through APEMCL portal: <ul style="list-style-type: none"> <li>• Hazardous waste (solid) – 4958.81 Tonne</li> <li>• Hazardous waste (liquid) – 903.14 Tonne</li> </ul>
(ii)	Imported (if applicable):	Not applicable

2	Quantity in stock at the beginning of the year:	For Cement Plant: <ul style="list-style-type: none"> <li>Hazardous waste (solid) – 217.95 Tonne</li> <li>Hazardous waste (liquid) – 30.07 Tonne</li> </ul>
3	Quantity recycled or co-processed or used:	Co-processed in Cement Kilns: <ul style="list-style-type: none"> <li>Hazardous waste (solid) – 5176.76 Tonne (including moisture loss)</li> <li>Hazardous waste (liquid) – 917.95 Tonne</li> </ul>
4	Quantity of products dispatched (wherever applicable):	Not applicable
5	Quantity of waste generated:	Not applicable
6	Quantity of waste disposed:	Not applicable
7	Quantity re-exported (whether applicable):	Not applicable
8	Quantity in storage at the end of the year:	For Cement Plant: <ul style="list-style-type: none"> <li>Hazardous waste (solid) – 0.0 Tonne</li> <li>Hazardous waste (liquid) – 15.26 Tonne</li> </ul>

Note: All these materials are received through APEMCL portal, from the sources located within Andhra Pradesh.

#### Usage of alternate fuels:

##### Pet coke:

Pet coke (imported / indigenous) is being used in cement plant as an alternate fuel. The permitted quantity for usage of imported / indigenous pet coke is 4,74,666 Tonne per annum. The quantity of pet coke used in the financial year 2023-2024 is 177351.6 Tonne.

##### Alternate fuels:

Various alternate fuels (other than hazardous wastes) received in the financial year 2023-2024:

S. No.	Name of Alternate Fuel received	Source / Industry	Procured Quantity, MT
1	Chilli Spent	M/s. Chenguang Bio Tech (India) Pvt. Ltd., Khammam	396.22
2	Coal Dust	M/s. Planet Energys, Hyderabad	9890.86
3	Saw Dust	M/s. Planet Energys, Hyderabad	8.86
		<b>Total</b>	<b>10,295.94</b>

Various cleaner production practices are initiated to control air emissions as well as fugitive emissions from sources. These practices are:

- For better housekeeping, '5-S – Work Place Management' is implemented.
- Fuel required for cement plant is mostly received through railway wagons to the plant premises.
- Fly ash generated from thermal power plant is being utilized in cement plant.

- 3 Nos. of road sweepers, 2 Nos. of industrial vacuum cleaners and 1 No. of mobile water sprinkler are in operation to maintain clean environment. The operating cost of these is Rs. 34.79 lakh in the financial year 2023-2024 against Rs. 30.96 lakh in the financial year 2022-2023.
- Water spraying system installed at limestone crusher hopper to control fugitive dust.
- Duoflex Burners for kiln firing & low NOx calciners are used to reduce NOx levels.
- Usage of low grade limestone (of silica content up to 18%) to conserve the reserves in the captive limestone mines.
- Dedicated haul road from Ravirala Limestone Mine (RF) to crusher is paved with concrete to control fugitive emissions. Permanent Water Sprinkling System installed at mines haul road.
- Most of the plant internal roads are paved with concrete to arrest fugitive dust.
- Limestone transportation from Ramco Budawada Limestone Mine (RF) to the plant is through railway wagons.
- Landscaping and Greenbelt development taken up in plant premises and township area for pleasant environment.
- Telescopic chute and hatch for the wagon loading spout are arranged at clinker truck loading and clinker wagon loading areas & limestone wagon loading areas respectively to reduce the fugitive emission.

#### **GREENBELT ACTIVITIES:**

Greenbelt is developed in an area of 130.24 ha by March 2024. Emphasis is being made to maintain 130.24 ha greenbelt area in and around plant premises. Emphasis is also being made in planting dust capturing plants in consultation with local DFO to mitigate the effects of air emissions.

#### **High Density Plantation (Miyawaki method):**

High density plantation is initiated in the financial year 2019-2020. The details of high density plantation carried out in the plant, captive mines and colony up to March 2024:

- No. of saplings planted – 22335.
- Total area covered – 6040 m<sup>2</sup>.

#### **EXPENDITURE INCURRED FOR ENVIRONMENT PROTECTION:**

Various expenditures incurred in the financial year 2023-2024 for environment protection measures are listed in Annexure - XV.

- The cost of power consumed for operation of various pollution control equipment operated in cement plant & thermal power plant in the financial year 2023-2024 (air & water pollution equipment) is Rs. 895.81 lakh against Rs. 1104.77 lakh in financial year 2022-2023 i.e., Rs. 48.79/Tonne of cement in the financial year 2023-2024 against Rs. 64.45/Tonne of cement in the financial year 2022-2023.

- Rs. 97.44 lakh incurred towards capital cost for various pollution control measures for cement plant, thermal power plant and mines in the financial year 2023-2024 against Rs. 603.50 lakh investment for capital cost in the financial year 2022-2023.
- Total environmental protection expenditure made in the financial year 2023-2024 (for cement plant, thermal power plant and mines) is Rs. 3101.52 lakh against Rs. 2579.04 lakh in financial year 2022-2023, i.e., nearly Rs. 168.94/Tonne of cement in financial year 2023-2024 against Rs. 150.46/Tonne of cement in financial year 2022-2023.
- An amount of Rs. 1611.20 lakh is allocated towards Environment Management Activities for the financial year 2024-2025 towards capital as well as recurring costs for plant & mines and being spent.

#### **RECENT SOCIO - ECONOMIC MEASURES CARRIED OUT:**

As part of Corporate Social Responsibility, various socio-economic measures are being carried out. Cost of various socio-economic activities for the surrounding villages in the financial year 2003-2024 is Rs. 1,01,20,449/- against Rs. 1,20,10,872/- in the financial year 2022-2023. Total expenditure made for the period 2003-2024 (21 years) is Rs. 1358.38 lakh with an average of Rs. 64.68 lakh per annum (for 21 years). Expenditure details made for the period 2003-2024 (21 years) are enclosed as Annexure – XX.

Some of the major initiatives taken in the financial year 2023-2024 are as follows:

- Contribution for the Butterfly Park road development at Mulapadu, NTR District, AP.
- Procurement of Sewing machines & Embroidery machines to Sri Raghavendra Charitable Trust under CSR funds thru CEO CONNECT to ANDHRA, Planning Department, Government of Andhra Pradesh for the cause of Women empowerment, we are proposed to contribute an amount of Rs. 15,00,000/- (Rupees Fifteen Lakh only) for the procurement of Sewing machines and Embroidery machines.
- Laying of Earthen Road leading to Agriculture lands at Ravirala Village activities in the financial year 2023-2024.
- Water supply for agriculture fields at Jayanthipuram Village.
- Water supply for Jayanthipuram village, Dharmavarappadu Thanda village & Budawada village (in summer season) for safe drinking water.
- Construction of Open Drains at Jayanthipuram Village. As part of infrastructural development facilities in the nearby villages.
- Construction of Washing Platform facility at paleru river bank at K Agraharam Village. As part of infrastructural development facilities in the nearby villages.

#### **ENERGY CONSERVATION:**

- Certified for Energy Management System – ISO 50001:2018 and various initiatives are being taken to optimize the energy consumption.
- The exit gases from kilns are being utilized for drying of raw materials while raw mills & coal mills. Vent gases from coolers are being utilized for cement grinding section.
- Waste Heat Boilers connected to Cement Plant Line – I, II & III and power is being produced from the excess waste heat recovered from these circuits. Out of 318138307

units generated in the financial year 2023-2024, 188750490 units are generated from waste heat recovery boilers (59.33 %) and 129387817 units are generated from coal based thermal power plant (40.67 %).

- The details of LED lights by the end of March 2024 are as follows:

Total LED light fittings	12996Nos.
Total rating of LED lights	587674 W
Amount invested on LED lights	Rs. 301.73 Lakh

- LED lights are being distributed to prize winners for all energy management system competitions to inculcate LED light usage in the residential areas located in colony as well as in nearby villages.

#### COMPLIANCE REPORT ON CREP CONDITIONS:

S. No.	CREP Condition	Compliance
1	Implementation of standards in non-complying units	Complying with the latest notified norms
2	Plants in critically polluted or urban area (5 km distance outside urban boundary) will meet 100 mg/Nm <sup>3</sup> SPM emission	Not applicable as our cement plant is not located in critically polluted or urban area (5 km distance outside urban boundary). Moreover, <ul style="list-style-type: none"> <li>• As per the latest particulate emission norm of 30 mg/Nm<sup>3</sup> for cement plants by CPCB (effect from 01.04.2017), upgradation projects are made for some of the air pollution control equipment of cement plant and presently operating the plant with less than 30 mg/Nm<sup>3</sup> of PM emissions level.</li> <li>• The particulate emission norm of 20 mg/Nm<sup>3</sup> is defined for our cement plant Line – III.</li> </ul>
3	The new cement kilns to be accorded NOC / EC for complying 50 mg/Nm <sup>3</sup> emission limit	<ul style="list-style-type: none"> <li>• As per the latest particulate emission norm of 30 mg/Nm<sup>3</sup> for cement plants by CPCB (effect from 01.04.2017), upgradation projects are made for some of the air pollution control equipments of cement plant and presently operating the plant with less than 30 mg/Nm<sup>3</sup> of PM emissions level.</li> <li>• The particulate emission norm of 20 mg/Nm<sup>3</sup> is defined for our cement plant Line – III.</li> </ul>
4	CPCB will evolve load based standards by June 2004	As per the latest load based standard of 0.125 kg/Tonne of clinker (particulate matter from raw mill, kiln and pre-calciner system put together) for cement plants by CPCB (effect from 01.04.2017), upgradation projects are made for some of the air pollution control equipments of cement plant

S. No.	CREP Condition	Compliance
5	CPCB and NCBM will evolve SO <sub>2</sub> and NO <sub>x</sub> emission standards by June 2004	<p>The new standards are formulated recently, as follows:</p> <ul style="list-style-type: none"> <li>• As our pyritic sulphur in limestone is less than 0.25%, our SO<sub>2</sub> standard for Kiln – I, II &amp; III is 100 mg/Nm<sup>3</sup>. The sulphur content is absorbed in clinker and the emission levels are well within the limit.</li> <li>• NO<sub>x</sub> standards are 600 mg/Nm<sup>3</sup> for Kiln – I &amp; III and 800 mg/Nm<sup>3</sup> for Kiln – II respectively. To meet the same, low NO<sub>x</sub> burners and low NO<sub>x</sub> calciners are installed for 3 Nos. of Kiln circuits.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Installed unit bag filters in all conveyor transfer points.</li> <li>• Installed closed conveyors to transport raw materials to avoid fugitive emissions.</li> <li>• Operating pneumatic systems to convey fly ash to silos and for extraction systems.</li> <li>• Provided water sprinklers in the raw material yards and roads.</li> <li>• Operating 3 Nos. of road sweepers and 2 Nos. of industrial vacuum cleaners for cleaning the concrete roads and floors.</li> </ul>
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of pet coke as fuel by July 2003	As per SO 3518(E) dated 23.11.2016 and its amendments thereof, pet coke is permitted to use as feedstock for cement plant. The permitted quantity for usage of imported / indigenous pet coke is 4,74,666 Tonne per annum. The quantity of pet coke used in the financial year 2023-2024 is 177,351.67 Tonne. Pet coke is being used accordingly in cement plant.
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	Complied. 13 Nos. of online stack monitors are installed and online data is being transmitted to APPCB & CPCB websites.
9	Tripping in Kiln ESP to be minimize by July 2003	Not applicable as no ESPs are installed for Kiln exhaust gases emitting circuits.
10	Industries will submit the target date to enhance utilization of waste materials	Waste material from other industries like fly ash, iron sludge, gypsum, slag and pet coke are being used in our plant.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003	Utilizing the hazardous wastes from other industries in cement kilns, which are procured through Andhra Pradesh Environment Management Corporation

S. No.	CREP Condition	Compliance
		(APEMC), in our cement kilns.
12	Cement industry will carry out feasibility study and submit target date to CPCB for cogeneration of power by July 2003	Being complied. <ul style="list-style-type: none"> <li>• The kiln exhaust gases are utilized for drying of raw materials at raw mill &amp; coal mill grinding circuits. Cooler vent gases are utilized for cement grinding section.</li> <li>• Waste Heat Recovery Boilers connected to Cement Plant Lines – I, II &amp; III are in operation to produce 27 MW power.</li> </ul>

**CELEBRATION OF WORLD ENVIRONMENT DAY:**

- On the eve of World Environment Day – 5<sup>th</sup> June 2023, plantation activity conducted at plant premises, mines premises, colony premises and at surrounding areas.

**THE RAMCO CEMENTS LTD, KSR NAGAR**  
**THERMAL POWER PLANT - EFFLUENT TREATMENT PLANT OUTLET QUALITY BY MoEF&CC APPROVED LABORATORY- YEAR 2023-2024**

Parameter	Unit	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Norm	Average / Range	Min.	Max.
p <sup>H</sup>		7.71	7.83	7.89	7.91	7.87	7.89	7.91	7.98	7.91	7.98	7.87	7.91	5.5 - 9.0	7.71 - 7.98	7.71	7.98
Total Dissolved Solids	mg/L	983	991	980	976	958	963	982	974	981	996	983	996	2100	980.3	958	996
Total Suspended Solids	mg/L	38.6	38.2	37.6	38.3	39.2	41.2	40.6	41.6	43.2	42.6	45.3	46.2	100	41.1	37.6	46.2
Chemical Oxygen Demand	mg/L	64.3	64.3	62.3	61.6	60.3	61.6	63.9	64.2	65.1	63.8	65.2	68.3	250	63.7	60.3	68.3
BOD (for 3 days at 27 °C)	mg/L	24.6	24.6	23.5	22.9	28.1	22.3	23.6	22.9	23.4	22.9	23.6	22.9	100	23.8	22.3	28.1
Oil & Grease	mg/L	1.5	1.2	1.1	1	1.2	1.4	1.5	1.4	1.6	1.4	1.5	1.4	10	1.4	1	1.6



**THE RAMCO CEMENTS LTD, KSR NAGAR**  
**SEWAGE TREATMENT PLANT OUTLET QUALITY - YEAR - 2023-2024**

Parameter	Unit	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Norm	Average / Range	Min.	Max.
p <sup>H</sup>		7.81	7.81	7.88	7.79	7.84	7.76	7.84	7.81	7.89	7.99	7.91	7.98	5.5 - 9.0	7.76 - 7.99	7.76	7.99
Total Dissolved Solids	mg/L	663	678	681	674	681	674	691	688	6.91	678	682	712	2100	625.7	6.91	712
Total Suspended Solids	mg/L	27.1	27.3	26.2	20.6	21.2	20.3	21.6	20.3	21.2	20.6	21.3	22.6	200	22.5	20.3	27.3
Chemical Oxygen Demand	mg/L	40.2	38.1	39.1	38.3	39.3	39.1	38.3	37.2	38.4	36.2	37.3	36.8	250	38.2	36.2	40.2
BOD (for 3 days at 27 °C)	mg/L	8.5	8.2	8.4	8.2	8	8.4	8.2	8.8	8.9	8.7	8.9	8.7	100	8.5	8	8.9
Oil & Grease	mg/L	1.5	1.6	1.7	1.5	1.4	1.5	1.1	1.0	1.3	1.1	1.4	1.1	10	1.4	1	1.7

**THE RAMCO CEMENTS LTD, KSR NAGAR**  
**AUTO GARAGE OIL & GREASE TRAP OUTLET QUALITY - YEAR 2023-2024**

Parameter	Unit													Norm	Average / Range	Min.	Max.
		Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24				
p <sup>H</sup>		7.97	7.99	7.82	7.79	7.82	7.93	7.87	7.79	7.86	7.78	7.81	7.96	5.5 - 9.0	7.68 - 7.99	7.78	7.99
Total Dissolved Solids	mg/L	963	996	912	901	878	891	884.00	878.00	891.00	864.00	891.00	888.00	2100	903.1	864.0	996.0
Total Suspended Solids	mg/L	76.3	76.3	70.6	68.4	69.3	67.2	65.30	64.20	65.30	69.30	71.20	73.20	200	69.7	64.2	76.3
Chemical Oxygen Demand	mg/L	161	161	154	139	141	139	124.00	112.00	121.00	118.00	121.00	114.00	250	133.8	112.0	161.0
BOD (for 3 days at 27 °C)	mg/L	49.2	49.7	45.3	42.6	43.9	42.4	43.60	42.90	43.80	42.60	43.60	42.60	100	44.4	42.4	49.7
Oil & Grease	mg/L	2.1	2.1	2.0	1.8	1.7	1.5	1.10	1.30	2.10	2.00	2.40	2.60	10	1.9	1.1	2.6

## Annexure - V

**THE RAMCO CEMENTS LTD., KSR NAGAR**  
**CONTINUOUS EFFLUENT QUALITY MONITORING DATA**  
**(PERIOD - APRIL 2023 TO MARCH 2024)**

Month	Concentration		
	pH Value	Total Suspended Solids (mg/l)	Temperature - (°C)
Apr-23	8.36	31.65	32.1
May-23	8.14	4.09	33.06
Jun-23	8.41	8.95	33.81
Jul-23	8.13	10.14	29.99
Aug-23	8.12	7.23	31.55
Sep-23	8.32	7.39	30.83
Oct-23	8.01	6.93	31.57
Nov-23	8.03	20.75	28.36
Dec-23	7.85	3.43	26.11
Jan-24	8.36	15.89	26.14
Feb-24	7.93	21.18	28.04
Mar-24	8.27	36.3	30
<b>Max</b>	<b>8.41</b>	<b>36.30</b>	<b>33.81</b>
<b>Min</b>	<b>7.85</b>	<b>3.43</b>	<b>26.11</b>
<b>Avg</b>	<b>8.16</b>	<b>14.49</b>	<b>30.13</b>

**THE RAMCO CEMENTS LTD., KSR NAGAR**  
**STACK MONITORING DATA BY MoEF&CC APPROVED LABORATORY - FINANCIAL YEAR 2023-2024**

S. No.	Stack Attached to	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Average	Norm
<b>I. PM Concentration, mg/Nm<sup>3</sup></b>															
1	Kiln - I Bag House	18	20.2	19.4	15.5	21.3		9	15.3		13.1	19.6	24.2	17.6	30
2	Coal Mill - I Bag House	10.4	6.1	5.9	14.9	8.4		19.1	6.46		8.8	6.43	5.36	9.2	30
3	Cooler - I - ESP	17.1	25.3	13.5	11.7	20.1		8.3	15.6		18.4	12.2	9.8	15.2	30
4	Kiln - II RABH	22.4	25.1	23.3		22.6	24.4	14.6		14.7	13.2	11.9	29.3	20.2	30
5	Coal Mill - II Bag House	11.9	6.1	6.3		11.4	10.1	18.77		8.4	6.2	7.79	11.9	9.9	30
6	Cooler - II - ESP	20.7	28.56	15.03		11.3	23	11.41		22.4	22.7	28.5	29	21.3	30
7	Kiln - III Bag House	13.1	18.5	14.6	13.8	15.1	19.9	14.1	34.9	15.5	13.9	10.1	12.9	16.4	20
8	Coal Mill - III Bag House	17.0	7.1	6.6	12	17	16.5	14.55	18.8	20.6	15.4	15.4	16.2	14.8	20
9	Cooler - III - ESP	18.0	18.8	16	10.1	12	12.6	11.41	10.4	9.1	18.1	13.8	11.2	13.5	20
10	Cement Mill Separator Bag House	16	8.4	6.3	9.3	22		7.85	5.06	5.06	10.2	9.32	16.3	10.5	30
11	Cement Mill Vent Bag Filter	11.8	6.7	5.1	7.1	10		12.48	9.2	9.15	7.15	7.21	11.8	8.9	30
12	Slag Mill Bag House	15.6	14.2	11.6		17	6.8	19.44		6.34	7.35	12.8	7.32	11.8	30
13	JPM - Limestone Crusher Bag Filter	12.6	5.1	7	5.4	6.1	5.62	18.03	5.83	5.83	19.2	19.2	5.3	9.6	30
14	Budawada - Limestone Crusher Bag Filter												10.4	10.4	30
15	Thermal Power Plant ESPs	27.8	22	22.2	46.6	23.6	28.1	31.6	28.3	31.6	27.1	29.2	28.4	28.9	50
<b>II. SO<sub>2</sub> Concentration,, mg/Nm<sup>3</sup></b>															
1	Kiln - I Bag House	14	15.4	8	23	20		14.9	8.7		21.2	9.2	BDL	14.9	100
2	Kiln - II RABH	18.1	83	50.8		8	12.3	9.8		9.05	9.05	10.2	BDL	23.4	100
3	Kiln - III Bag House	BDL	10	8	23.9	5.9	18.4	7.2	9.9	7.02	7.7	13.5	BDL	11.2	100
4	Thermal Power Plant ESPs	535	493	459	431	581	433	465	486	217	556	511	511	473.2	600
<b>III. NO<sub>x</sub> Concentration,, mg/Nm<sup>3</sup></b>															
1	Kiln - I Bag House	403	598	413	510	488		507	528		442	530	454	487.3	600
2	Kiln - II RABH	521	640	588		465	510	497		398	494	474	377	496.4	800
3	Kiln - III Bag House	561	458	470	451	520	564	439	560	293	455	276	341	449.0	600
4	Thermal Power Plant ESPs	234	255	258	239	200	260	270	269	237	311	344	269	262.2	450

**THE RAMCO CEMENTS LIMITED, KUMARASAMY RAJA NAGAR**  
**CONTINUOUS EMISSION MONITORING DATA (PERIOD - APRIL 2023 TO MARCH 2024)**

Stack Attached to	Thermal Power Plant			Kiln - I			Kiln - II			Kiln - III			Cooler - I	Cooler - II	Cooler - III	Coal Mill - I	Coal Mill - II	Coal Mill - III	Slag Mill	Cement Mill Separator	Cement Mill Vent
	PM	Nox	SO <sub>2</sub>	PM	Nox	SO <sub>2</sub>	PM	Nox	SO <sub>2</sub>	PM	Nox	SO <sub>2</sub>	PM	PM	PM	PM	PM	PM	PM	PM	PM
Apr-23	34.64	77.61	344.52	12.60	234.34	0.29	10.98	103.45	15.95	6.84	275.21	22.90	10.32	18.23	6.74	6.81	7.55	9.23	8.15	5.87	6.52
May-23	37.90	110.32	369.68	18.12	224.51	0.07	8.95	87.63	5.72	6.96	129.64	23.12	16.61	17.82	5.51	7.63	5.81	6.36	5.63	5.61	10.14
Jun-23	32.91	153.67	389.52	17.70	277.34	0.00	14.74	102.20	0.07	11.93	157.42	1.47	13.14	16.56	8.32	6.84	16.16	4.53	3.64	6.34	12.70
Jul-23	36.77	117.40	339.05	15.43	260.71	0.17	3.43	23.91	8.43	12.88	214.68	1.71	13.26	3.05	7.95	11.11	3.24	3.76	1.63	9.41	9.02
Aug-23	34.93	132.08	318.86	5.44	38.58	0.01	12.61	82.49	20.49	12.44	234.71	0.48	3.77	10.53	7.83	3.15	3.74	5.42	4.37	6.09	7.36
Sep-23	36.52	105.01	273.35	10.15	49.57	0.02	15.77	108.00	65.44	10.43	222.04	3.41	6.34	15.51	8.35	4.64	10.16	8.11	6.67	1.48	1.82
Oct-23	35.28	117.93	288.57	14.84	128.76	1.63	11.05	89.30	66.33	12.51	248.46	31.23	13.71	15.77	9.30	12.01	12.72	8.35	5.61	7.29	11.67
Nov-23	33.98	95.94	246.85	9.20	76.16	0.23	9.44	97.08	30.15	12.90	323.91	26.25	11.52	10.80	5.55	7.65	6.06	5.37	4.86	3.53	6.51
Dec-23	37.68	107.95	268.29	5.82	25.90	0.13	16.65	98.66	1.26	9.65	327.98	19.18	4.90	14.89	4.03	3.77	7.97	2.17	5.56	4.04	13.19
Jan-24	36.66	101.73	255.44	13.63	105.85	4.25	17.06	105.30	2.31	10.41	301.58	8.61	18.98	15.83	5.42	6.60	5.24	1.62	4.36	3.79	10.57
Feb-24	36.27	100.55	253.47	13.20	110.53	2.72	14.43	132.37	1.42	8.69	177.99	7.53	15.94	15.87	5.12	7.56	9.69	1.58	2.67	4.90	8.29
Mar-24	29.91	82.05	215.98	13.58	101.74	16.99	18.92	86.00	0.29	15.18	266.05	7.78	14.92	16.13	10.63	4.21	7.96	3.67	2.18	4.59	13.61
Max	37.90	153.67	389.52	18.12	277.34	16.99	18.92	132.37	66.33	15.18	327.98	31.23	18.98	18.23	10.63	12.01	16.16	9.23	8.15	9.41	13.61
Min	29.91	77.61	215.98	5.44	25.90	0.00	3.43	23.91	0.07	6.84	129.64	0.48	3.77	3.05	4.03	3.15	3.24	1.58	1.63	1.48	1.82
Avg	35.29	108.52	296.97	12.48	136.17	2.21	12.84	93.03	18.16	10.90	239.97	12.81	11.95	14.25	7.06	6.83	8.03	5.01	4.61	5.25	9.28

Note: All values are mentioned as mg/Nm<sup>3</sup>.

## Annexure - VIII

## THE RAMCO CEMENTS LTD., KSR NAGAR

## AMBIENT AIR QUALITY MONITORING DATA BY MoEF&amp;CC APPROVED LABORATORY - YEAR 2023-2024

Month	Near Temple				Near Slag Shed				Mines Office			
	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx
Apr-23	78.3	31.6	21.3	25.3	73.6	29.6	21.4	24.9	77.1	28.3	22.3	28.1
May-23	80.6	31.6	21.3	25.9	71.8	29.1	18.7	24.1	68.9	27.3	20.2	27.2
Jun-23	83.9	32.7	22.3	26.3	73.6	30.6	19.1	25.2	72.6	28.9	21.6	28.3
Jul-23	75.2	30.4	21.3	25.2	71.0	28.6	17.8	24.3	69.3	26.1	19.1	27.1
Aug-23	70.1	28.2	20.2	23.1	67.3	27.3	16.3	22.9	65.4	26.2	19.7	28.3
Sep-23	72.3	29.7	21.4	24.8	66.9	28.6	17.6	23.4	68.3	27.8	21.6	29.3
Oct-23	75.3	32.4	20.6	23.9	63.1	26.1	18.2	21.6	70.6	30.1	20.9	25.4
Nov-23	80.2	36.7	23.8	24.1	68.4	25.1	19.2	23.8	76.1	33.9	21.4	26.9
Dec-23	71.3	32.3	21.0	25.1	62.1	25.1	17.5	20.1	70.6	30.6	20.2	24.3
Jan-24	68.4	30.6	19.2	22.8	60.6	23.2	16.3	19.1	65.1	28.4	18.4	22.6
Feb-24	71.2	32.3	18.4	23.6	63.9	25.1	17.9	19.9	68.6	29.3	19.3	23.1
Mar-24	73.6	31.6	19.2	25.1	65.2	26.1	18.3	21.7	67.1	28.2	18.4	22.6
Norm	100	60	80	80	100	60	80	80	100	60	80	80
Avg.	<b>75.0</b>	<b>31.7</b>	<b>20.8</b>	<b>24.6</b>	<b>67.3</b>	<b>27.2</b>	<b>18.2</b>	<b>22.6</b>	<b>70.0</b>	<b>28.8</b>	<b>20.3</b>	<b>26.1</b>

Note: All values are mentioned in  $\mu\text{g}/\text{m}^3$ .

**THE RAMCO CEMENTS LTD., KSR NAGAR**  
**AMBIENT AIR QUALITY MONITORING DATA - BUFFER ZONE VILLAGES**  
**(PERIOD - APRIL 2023 TO MARCH 2024)**

Location	Parameter	April-23		May-23		June-23		July-23		Aug-23		Sep-23		Oct-23		Nov-23		Dec-23		Jan-24		Feb-24		Mar-24		Average	Limits
		I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night	I Fort-night	II Fort-night		
Dharmavarapupadu Tanda	PM 10	65.1	65.3	58.9	55.9	65.2	68.9	60.5	48.3	62.4	45.3	60.3	48.3	53.9	51.2	56.2	55.3	58.9	58.3	56.3	60.6	58.4	62.3	59.6	63.9	58.30	100
	PM 2.5	26.4	26.3	23.9	22.5	26.5	27.8	24.6	19.5	25.3	18.3	24.5	19.5	21.9	20.6	22.8	22.3	23.9	23.5	22.9	24.4	23.7	25.1	24.2	25.8	23.59	60
	SO <sub>2</sub>	16.3	19.2	16.2	17.2	16.2	19.6	12.3	18.2	13.4	17.3	12.9	18.2	13.5	19.8	12.8	17.2	13.5	18.3	14.5	19.1	15.6	16.3	16.2	17.8	16.32	80
	NO <sub>x</sub>	18.9	21.9	18.8	19.9	18.0	22.3	14.9	20.9	16.0	20.0	15.5	20.9	16.1	22.5	15.4	19.9	16.1	21.0	17.1	21.8	18.2	19.0	18.8	20.5	18.93	80
	CO	291.0	277.0	239.0	272.0	312.0	278.0	284	248.0	214.0	254.0	199.0	261.0	212.0	274.0	242.0	161.0	252.0	161.0	261.0	169.0	281.0	215.0	296.0	221.0	244.75	2000
Jayanthipuram	PM 10	62.3	62.1	62.3	60.2	61.3	60.6	59.6	52.6	58.3	50.1	56.9	53.6	58.4	55.9	60.3	54.2	62.3	56.1	60.4	58.3	62.3	61.4	63.5	62.6	58.98	100
	PM 2.5	25.0	25.3	25.0	24.6	24.6	24.7	23.9	21.5	23.4	20.4	22.8	21.9	23.4	22.8	24.2	22.1	25.0	22.9	24.2	23.8	25.0	25.1	25.5	25.5	23.86	60
	SO <sub>2</sub>	16.1	17.1	15.9	16.3	15.3	18.3	13.5	16.3	13.1	15.1	11.6	16.3	12.4	17.4	13.6	18.1	14.2	15.3	15.2	16.2	16.3	15.4	16.1	16.3	15.48	80
	NO <sub>x</sub>	19.0	20.0	18.8	19.2	18.2	21.2	16.4	19.2	16.0	18.0	14.5	19.2	15.3	20.3	16.5	21.0	17.1	18.2	18.1	19.1	19.2	18.3	19.0	19.2	18.38	80
	CO	256.0	289.0	261.0	269.0	303.0	269.0	212	212.0	223.0	206.0	242.0	221.0	245.0	259.0	284.0	263.0	284.0	269.0	174.0	274.0	236.0	284.0	241.0	249.08	2000	
Chillakallu	PM 10	59.1	63.8	56.3	58.3	62.4	64.9	60.4	43.5	61.4	44.6	60.5	59.1	61.6	56.3	63.8	53.9	65.1	55.2	62.6	57.9	62.5	59.3	58.4	61.4	58.85	100
	PM 2.5	23.9	25.8	22.7	23.6	25.2	26.3	24.4	17.6	24.8	18.1	24.4	23.9	24.9	22.8	25.8	21.8	26.3	22.4	25.3	23.4	24.0	23.6	24.9	23.80	60	
	SO <sub>2</sub>	16.9	18.3	16.1	17.9	17.3	15.6	12.6	14.2	12.9	12.9	10.9	14.5	11.2	15.3	12.9	17.3	13.1	16.9	13.9	18.3	15.4	19.2	16.9	18.4	15.37	80
	NO <sub>x</sub>	19.6	21.4	18.8	21.0	20.0	18.7	15.3	17.3	15.6	16.0	13.6	17.6	13.9	18.4	15.6	20.4	15.8	20.0	16.6	21.4	18.1	22.3	19.6	21.5	18.27	80
	CO	245.0	278.0	259.0	301.0	321.0	274.0	236	235.0	209	239.0	201.0	249.0	210.0	253.0	213.0	221.0	242.0	221.0	252.0	202.0	263	214.0	271.0	252.0	244.46	2000
K.Agraharam Village	PM 10	58.3	64.6	60.1	56.1	60.6	65.3	58.3	42.6	59.2	41.9	57.3	43.6	58.9	45.1	61.6	50.6	62.3	53.1	61.9	55.6	63.9	54.1	62.1	58.3	56.48	100
	PM 2.5	23.5	26.4	24.2	22.9	24.4	26.6	23.5	17.4	23.9	17.1	23.1	17.8	23.7	18.4	24.8	20.6	25.1	21.7	24.9	22.7	25.8	22.1	25.0	23.8	22.89	60
	SO <sub>2</sub>	15.4	17.9	16.8	15.8	16.2	17.1	11.9	10.1	12.1	10.8	11.4	12.6	11.9	13.9	13.5	18.2	13.1	18.3	12.6	19.4	13.9	20.3	14.6	21.6	14.98	80
	NO <sub>x</sub>	18.5	20.3	19.9	18.2	19.3	19.5	15	12.5	15.2	13.2	14.5	15.0	15.0	16.3	16.6	20.6	16.2	20.7	15.7	21.8	17	22.7	17.7	24.0	17.73	80
	CO	259.0	274.0	291.0	289.0	296.0	278.0	284	242.0	274	248.0	252.0	256.0	259.0	261.0	221.0	226.0	239.0	236.0	248.0	212.0	254	236.0	263.0	248.0	256.08	2000
Jaggayyapet	PM 10	57.2	58.4	62.9	72.1	63.5	60.2	54.6	58.4	53.5	56.2	51.6	58.1	53.5	59.7	55.9	52.4	58.3	53.9	62.8	55.3	65.3	56.2	66.8	59.6	58.60	100
	PM 2.5	23.5	23.6	52.9	29.1	26.1	24.3	22.4	23.6	22	22.7	21.2	23.5	22.0	24.1	23.0	21.2	24.0	21.8	25.8	22.3	26.8	22.7	27.5	24.1	25.01	60
	SO <sub>2</sub>	17.8	17.1	17.2	16.5	18.2	18.3	13.1	10.9	13.4	11.1	12.6	13.5	13.6	14.2	13.9	15.4	14.3	16.2	14.6	17.3	15.1	18.4	15.4	19.3	15.31	80
	NO <sub>x</sub>	20.2	20.1	19.6	19.5	20.6	21.3	15.5	13.9	15.8	14.1	15.0	16.5	16.0	17.2	16.3	18.4	16.7	19.2	17.0	20.3	17.5	21.4	17.8	22.3	18.01	80
	CO	271.0	263.0	287.0	326.0	289.0	261.0	236.0	223.0	212	239.0	189.0	241.0	211.0	248.0	262.0	225.0	245.0	225.0	246.0	205.0	259	209.0	269.0	218.0	244.13	2000
Budawada	PM 10	61.3	67.3	65.6	59.7	62.8	69.1	55.3	52.9	52.8	50.3	50.8	52.6	52.6	53.8	60.6	53.8	62.4	54.2	65.1	56.8	66.9	60.3	67.6	61.8	59.02	100
	PM 2.5	24.2	27.7	25.9	24.5	24.8	28.4	21.8	21.7	20.9	20.7	20.1	21.6	20.8	22.1	23.9	22.1	24.6	22.3	25.7	23.3	26.4	24.8	26.7	25.4	23.77	60
	SO <sub>2</sub>	15.9	16.8	15.3	17.9	16.9	16.2	12.8	12.3	12.9	12.5	12.3	13.9	13.4	14.1	14.2	16.3	15.2	15.4	15.9	16.2	16.3	15.3	16.2	16.2	14.98	80
	NO <sub>x</sub>	18.7	19.4	18.1	20.5	19.7	18.8	15.6	14.9	15.7	15.1	15.1	16.5	16.2	16.7	17.0	18.9	18	18.0	18.7	18.8	19.1	17.9	18.1	18.8	17.68	80
	CO	258.0	292.0	310.0	318.0	268.0	292.0	254.0	246.0	231	244.0	245.0	255.0	253.0	262.0	265.0	239.0	274	239.0	281	223	274	236.0	281.0	244.0	261.83	2000
Vedadri	PM 10	58.2	61.3	63.1	62.3	64.6	63.5	61.2	60.6	60.4	54.3	58.9	58.2	59.1	61.6	58.2	56.1	59.1	58.2	61.4	62.3	62.6	65.1	63.9	66.2	60.85	100
	PM 2.5	23.7	24.4	25.7	24.8	26.4	25.3	25.0	24.1	24.6	21.6	24.0	23.2	24.1	24.5	23.7	223.0	24.1	23.2	25.1	24.8	25.5	25.9	26.1	26.3	32.88	60
	SO <sub>2</sub>	16.3	17.1	16.9	18.2	17.1	16.9	14.2	11.2	13.2	12.8	12.5	13.8	12.9	14.5	13.1	14.3	13.8	15.1	14.7	16.1	15.4	17.9	14.6	18.4	15.04	80
	NO <sub>x</sub>	18.6	19.9	19.2	21.0	19.4	19.7	16.5	14.0	15.5	15.6	14.8	16.6	15.2	17.3	15.4	17.1	16.1	17.9	17	18.9	17.7	20.7	16.9	21.2	17.59	80
	CO	274.0	274.0	290.0	291.0	271.0	274.0	235.0	248.0	232	251.0	252.0	263.0	258.0	269.0	264.0	242.0	263	242.0	266	241	265	253.0	277.0	261.0	260.67	2000
Pochampalli	PM 10	60.4	56.3	68.2	61.6	61.3	58.6	58.3	53.5	59.3	51.6	57.1	53.5	58.4	55.2	59.3	50.9	61.6	53.1	60.9	56.9	62.8	58.4	60.6	59.7	58.23	100
	PM 2.5	24.7	22.9	27.9	25.0	25.1	23.8	23.8	21.7	24.3	20.9	23.4	21.7	23.9	22.4	24.3	20.7	25.2	21.6	24.9	23.1	25.7	23.7	24.8	24.20	32.81	60
	SO <sub>2</sub>	15.5	16.9	17.3	17.1	15.3	17.1	13.5	14.1	13.3	14.2	13.1	15.1	13.5	15.5	14.5	16.1	14.9	16.9	15.3	15.4	15.5	16.6	16.1	17.1	21.15	80
	NO <sub>x</sub>	18.4	19.2	20.2	19.4	18.2	19.4	16.4	16.4	16.2	16.5	16.0	17.4	16.4	17.6	17.4	18.4	17.8	19.2	18.2	17.7	18.4	18.9	19.0	19.4	18.00	80
	CO	288.0	268.0	312.0	307.0	299.0	259.0	216.0	261.0	229	268.0	236.0	274.0	241.0	284.0	253.0	259.0	258	259.0	264	236	269	248.0	278.0	253.0	263.29	2000
Ravirala	PM 10	57.9	60.2	64.1	60.8	65.9	62.8	59.7	60.1	57.1	55.3	55.4	57.9	56.2	58.3	61.4	53.7	63.9	54.1	64.6	57.2	65.1	59.3	68.4	60.6	60.00	100
	PM 2.5	23.6	24.2	26.1	24.8	26.8	25.6	24.3	24.5	23.2	22.6	22.5	23.6	22.9	23.8	25.0											

**THE RAMCO CEMENTS LTD., KSR NAGAR**  
**CONTINUOUS AMBIENT AIR QUALITY MONITORING DATA (PERIOD - APRIL 2023 TO MARCH 2024)**

Description	Concentration, ug/m3							
Location	Time Office				Mines Office			
Month	PM10	PM2.5	SO2	Nox	PM10	PM2.5	SO2	Nox
Apr-23	57.95	24.00	11.25	1.00	46.85	23.92	5.02	3.06
May-23	68.62	23.91	12.77	0.90	46.03	20.25	6.51	4.76
Jun-23	63.81	19.26	14.39	0.88	57.07	18.62	9.10	4.95
Jul-23	32.78	7.41	15.70	0.87	19.10	8.58	9.18	4.84
Aug-23	37.73	13.35	24.72	1.50	31.75	10.77	10.90	9.29
Sep-23	34.04	18.19	32.55	2.10	35.85	16.42	12.89	12.16
Oct-23	60.59	20.72	35.43	2.11	56.47	29.54	18.17	11.62
Nov-23	42.40	20.12	37.75	2.07	38.85	24.05	17.60	12.03
Dec-23	35.04	15.28	39.84	2.09	17.21	7.29	18.16	10.13
Jan-24	29.24	13.97	42.03	1.92	26.38	13.23	16.88	8.91
Feb-24	26.57	13.40	43.76	2.00	28.65	10.13	20.31	8.56
Mar-24	23.86	8.83	37.58	1.92	47.69	7.43	19.95	7.45
Max	<b>68.62</b>	<b>24.00</b>	<b>43.76</b>	<b>2.11</b>	<b>57.07</b>	<b>29.54</b>	<b>20.31</b>	<b>12.16</b>
Min	<b>23.86</b>	<b>7.41</b>	<b>11.25</b>	<b>0.87</b>	<b>17.21</b>	<b>7.29</b>	<b>5.02</b>	<b>3.06</b>
Avg	<b>42.72</b>	<b>16.54</b>	<b>28.98</b>	<b>1.61</b>	<b>37.66</b>	<b>15.85</b>	<b>13.72</b>	<b>8.15</b>





# Annexure - XI

## GLens Innovation Labs Pvt Ltd.

NABL Accredited as per ISO17025:2017 , Certified as per ISO 9001:2015 & ISO 45001:2018



### TEST REPORT

ULR NO: TC85822400000409F to 0424F

**Report No** : EN240101020 to 0035 **Report Date** : 08-Feb-2024  
**Customer Name** : M/S.The Ramco Cements Limited  
**Customer Address** : Kumarasamy Raja Nagar, Jaggayyapet Mandal,Krishna District,Andhra Pradesh-521457  
**Sample Description** : Fugitive Emission  
**Sample No** : EN240101020 to 0035 **Sample Received on** : 27-Jan-2024  
**Sample Condition** : Good **Test Started on** : 27-Jan-2024  
**Test Completed** : 07-Feb-2024  
**Sample Submission Type** : Collected By Lab representative

#### Test result

S.No	Sampling Date	Sample Location	Test Name	Test Method	Results	Units
1	23-Jan-2024	Line -01 Coal mill	Suspended Particulate matter	NIOSH-500	110.0	µg/m <sup>3</sup>
2	23-Jan-2024	Line -02 Coal mill	Suspended Particulate matter	NIOSH-500	94.30	µg/m <sup>3</sup>
3	23-Jan-2024	Line -03 Coal mill	Suspended Particulate matter	NIOSH-500	120.0	µg/m <sup>3</sup>
4	23-Jan-2024	Line -01 Cooler area	Suspended Particulate matter	NIOSH-500	90.00	µg/m <sup>3</sup>
5	23-Jan-2024	Line -02 Cooler area	Suspended Particulate matter	NIOSH-500	88.40	µg/m <sup>3</sup>
6	23-Jan-2024	Line -03 Cooler area	Suspended Particulate matter	NIOSH-500	99.90	µg/m <sup>3</sup>
7	23-Jan-2024	Packing plant area	Suspended Particulate matter	NIOSH-500	166.0	µg/m <sup>3</sup>
8	24-Jan-2024	Cement Plant	Suspended Particulate matter	NIOSH-500	190.0	µg/m <sup>3</sup>
9	24-Jan-2024	DG house area	Suspended Particulate matter	NIOSH-500	142.0	µg/m <sup>3</sup>
10	23-Jan-2024	Pump House area	Suspended Particulate matter	NIOSH-500	180.0	µg/m <sup>3</sup>
11	24-Jan-2024	Cooler stack area	Suspended Particulate matter	NIOSH-500	170.0	µg/m <sup>3</sup>
12	24-Jan-2024	Limestone stacker	Suspended Particulate matter	NIOSH-500	135.0	µg/m <sup>3</sup>
13	24-Jan-2024	TPP Boiler area	Suspended Particulate matter	NIOSH-500	124.0	µg/m <sup>3</sup>
14	24-Jan-2024	CCR of TPP	Suspended Particulate matter	NIOSH-500	151.0	µg/m <sup>3</sup>
15	24-Jan-2024	CCR of Cement plant	Suspended Particulate matter	NIOSH-500	196.0	µg/m <sup>3</sup>
16	24-Jan-2024	Line -03 RABH	Suspended Particulate matter	NIOSH-500	176.0	µg/m <sup>3</sup>

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

Verified By

Authorized Signature  
E. PRITHVIRAJAN  
LAB MANAGER

GLENS INNOVATION LABS Pvt Ltd, #6/1, 1 St Floor, Sri Jothi Complex Murugesan Street, Balavinayagar Nagar, Arumbakkam Chennai 600106

#### Terms and Conditions:

- \* The test results related only to the items tested.
- \* The test report shall not be reproduced in full or part without the written approval of Glens.
- \* The test items will not be retained for more than 15 days from the date of issue of test report except in the case as required by the applicable regulations.
- \* The Laboratory's responsibility under this report is limited to proven wilful negligence and will in no case be more than the invoiced amount.
- \* A Satisfactory test report in no way implies that the product tested is approved by NABL.
- \* Laboratory is not responsible for the authenticity of the photocopied test reports.

**THE RAMCO CEMENTS LIMITED**

    
ISO 9001 ISO 14001 ISO 45001 ISO 50001  
Certified Company

Kumarasamy Raja Nagar – 521457  
Jaggayyapet Mandal, Krishna District,  
Andhra Pradesh, India  
Phone: 08654 224400-04  
Fax: 08654 222352  
E-mail: [mccljpm@ramcocements.co.in](mailto:mccljpm@ramcocements.co.in)

RCL/PCB/24/2024-2025

26<sup>th</sup> June 2024

The Environmental Engineer,  
A .P. Pollution Control Board,  
Regional Office, Plot No: 41,  
Gurunanak Road,  
Sri Kanakadurga Officers Colony,  
Vijayawada – 521 018.

Dear Sir,


- Sub: Submission of Annual Returns of Hazardous Wastes – Form – 4 for our Cement Plant, Thermal Power Plant and Waste Heat Recovery System for the financial year 2023-2024 - Reg.
- Ref: i. CFO order for plant No. APPCB/VJA/VJA/488/HO/CFO/2017- dated 02.11.2021.  
ii. CFO amendment order for plant No. APPCB/VJA/VJA/488/HO/CFO/2017- dated 02.12.2021.  
iii. CTO Amendment Order No. APPCB/VJA/VJA/488/CTO/HO/2019 dated 30.11.2022.

Please find enclosed herewith duly filled in Form – 4 - 'Form for Filling Annual Returns' of Hazardous Wastes for the financial year 2023-2024 for our Cement Plant, Thermal Power Plant and Waste Heat Recovery System.

This is for your kind information please.

Thanking you,

Yours faithfully,  
for The Ramco Cements Limited,

  
(ASHISH KUMAR SRIVASTAVA)  
President (Mfg.)

Encl.: As above.



**FORM 4**

*[See rules 6 (5), 13(8), 16(6) and 22 (2)]*

**FORM FOR FILLING ANNUAL RETURNS**

[To be submitted to State Pollution Control Board by 30<sup>th</sup> June of every year for the preceding period April to March]

1	Name and address of facility:	The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), NTR Dist.																	
2	Authorization No. and Date of issue:	Authorization Nos.: <ul style="list-style-type: none"> <li>• CFO order for plant No. APPCB/VJA/VJA/ 488/HO/CFO/2017- and dated 02.11.2021.</li> <li>• CFO amendment order for plant No. APPCB/VJA/VJA/ 488/HO/CFO/2017- and dated 02.12.2021.</li> <li>• CTO Amendment Order No. APPCB/VJA/VJA/ 488/CTO/HO/2019 dated 30.11.2022.</li> </ul>																	
		<table border="1"> <thead> <tr> <th>Name of the Product</th> <th>Unit</th> <th>Production capacity</th> </tr> </thead> <tbody> <tr> <td>Clinker</td> <td>Tonne</td> <td>46,85,000</td> </tr> <tr> <td>Cement</td> <td>Tonne</td> <td>36,50,000</td> </tr> <tr> <td>Thermal Power</td> <td>MW</td> <td>24</td> </tr> <tr> <td>Waste Heat Recovery Power</td> <td>MW</td> <td>27</td> </tr> </tbody> </table>	Name of the Product	Unit	Production capacity	Clinker	Tonne	46,85,000	Cement	Tonne	36,50,000	Thermal Power	MW	24	Waste Heat Recovery Power	MW	27		
Name of the Product	Unit	Production capacity																	
Clinker	Tonne	46,85,000																	
Cement	Tonne	36,50,000																	
Thermal Power	MW	24																	
Waste Heat Recovery Power	MW	27																	
3	Name of the authorized person and full address with telephone, fax number and e-mail:	Ashish Kumar Srivastava, President (Mfg.) The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), NTR Dist. Telephone: 08654 – 224400 to 04, Fax: 08654 – 222352, e-mail: mcljpm@ramcocements.co.in																	
4	Production during the year (product wise), whether applicable:	<table border="1"> <thead> <tr> <th>Type of Product</th> <th>Unit</th> <th>Quantity in 2023-2024</th> </tr> </thead> <tbody> <tr> <td>Clinker</td> <td>Tonne</td> <td>42,85,090.11</td> </tr> <tr> <td>Cement</td> <td>Tonne</td> <td>18,35,842.26</td> </tr> <tr> <td>Thermal Power</td> <td>kW/hr</td> <td>12,93,87,817</td> </tr> <tr> <td>Waste Heat Recovery Power</td> <td>kW/hr</td> <td>18,87,50,490</td> </tr> </tbody> </table>	Type of Product	Unit	Quantity in 2023-2024	Clinker	Tonne	42,85,090.11	Cement	Tonne	18,35,842.26	Thermal Power	kW/hr	12,93,87,817	Waste Heat Recovery Power	kW/hr	18,87,50,490		
Type of Product	Unit	Quantity in 2023-2024																	
Clinker	Tonne	42,85,090.11																	
Cement	Tonne	18,35,842.26																	
Thermal Power	kW/hr	12,93,87,817																	
Waste Heat Recovery Power	kW/hr	18,87,50,490																	

**Part A. To be filled by hazardous waste generators**

1	Total quantity of waste generated category wise:	From cement plant, thermal power plant, waste heat recovery plant and limestone mines:												
		<table border="1"> <thead> <tr> <th>Type of hazardous waste</th> <th>Quantity (in Tonne / kL / Nos.)</th> </tr> </thead> <tbody> <tr> <td>Waste Oil</td> <td>Nil</td> </tr> <tr> <td>Waste Grease</td> <td>Nil</td> </tr> <tr> <td>Waste Hi-chrome Grinding Media</td> <td>Nil</td> </tr> <tr> <td>Waste Lead Acid Batteries</td> <td>0.98 Tonne</td> </tr> </tbody> </table>	Type of hazardous waste	Quantity (in Tonne / kL / Nos.)	Waste Oil	Nil	Waste Grease	Nil	Waste Hi-chrome Grinding Media	Nil	Waste Lead Acid Batteries	0.98 Tonne		
Type of hazardous waste	Quantity (in Tonne / kL / Nos.)													
Waste Oil	Nil													
Waste Grease	Nil													
Waste Hi-chrome Grinding Media	Nil													
Waste Lead Acid Batteries	0.98 Tonne													

2	Quantity dispatched:																
(i)	To disposal facility:	Not applicable															
(ii)	To recycler to co-processors or pre-processor:	From cement plant, thermal power plant, waste heat recovery plant and limestone mines: <table border="1" data-bbox="597 359 1393 659"> <thead> <tr> <th>Type of hazardous waste</th> <th>Recycler</th> <th>Quantity (in Tonne / kL / Nos.)</th> </tr> </thead> <tbody> <tr> <td>Waste Oil</td> <td>NA</td> <td>Nil</td> </tr> <tr> <td>Waste Grease</td> <td>NA</td> <td>Nil</td> </tr> <tr> <td>Waste Hi-chrome Grinding Media</td> <td>NA</td> <td>Nil</td> </tr> <tr> <td>Waste Lead Acid Batteries</td> <td>M/s Southern Power Industries</td> <td>0.98 Tonne</td> </tr> </tbody> </table>	Type of hazardous waste	Recycler	Quantity (in Tonne / kL / Nos.)	Waste Oil	NA	Nil	Waste Grease	NA	Nil	Waste Hi-chrome Grinding Media	NA	Nil	Waste Lead Acid Batteries	M/s Southern Power Industries	0.98 Tonne
Type of hazardous waste	Recycler	Quantity (in Tonne / kL / Nos.)															
Waste Oil	NA	Nil															
Waste Grease	NA	Nil															
Waste Hi-chrome Grinding Media	NA	Nil															
Waste Lead Acid Batteries	M/s Southern Power Industries	0.98 Tonne															
(iii)	Others:	Not applicable															
3	Quantity utilized in-house, if any:	The waste oil & waste grease generated in the cement plant, thermal power plant, waste heat recovery plant and limestone mines are totally re-used within the premises as: <ul style="list-style-type: none"> <li>waste grease for lubrication of reclaimer chains along with fresh grease.</li> <li>waste oil for kiln light-up along with fresh HSD.</li> </ul>															
4	Quantity in storage at the end of the year:	From cement plant, thermal power plant, waste heat recovery plant and limestone mines: <table border="1" data-bbox="597 1031 1344 1253"> <thead> <tr> <th>Type of hazardous waste</th> <th>Quantity (in Tonne / kL / Nos.)</th> </tr> </thead> <tbody> <tr> <td>Waste oil</td> <td>Nil</td> </tr> <tr> <td>Waste Grease</td> <td>Nil</td> </tr> <tr> <td>Waste Hi-chrome Grinding Media</td> <td>Nil</td> </tr> <tr> <td>Waste Lead Acid Batteries</td> <td>Nil</td> </tr> </tbody> </table>	Type of hazardous waste	Quantity (in Tonne / kL / Nos.)	Waste oil	Nil	Waste Grease	Nil	Waste Hi-chrome Grinding Media	Nil	Waste Lead Acid Batteries	Nil					
Type of hazardous waste	Quantity (in Tonne / kL / Nos.)																
Waste oil	Nil																
Waste Grease	Nil																
Waste Hi-chrome Grinding Media	Nil																
Waste Lead Acid Batteries	Nil																

**Part B. To be filled by Treatment, storage and disposal facility operators**

1	Total quantity of received:	Not applicable
2	Quantity in stock at the beginning of the year:	
3	Quantity treated:	
4	Quantity disposed in landfills as such and after treatment:	
5	Quantity incinerated (if applicable):	
6	Quantity processed other than specified above:	
7	Quantity in storage at the end of the year:	

Part C. To be filled by recyclers or co-processors or other users

1	Quantity of waste received during the year:	
(i)	Domestic sources:	For Cement Plant - Through APEMCL portal: <ul style="list-style-type: none"><li>• Hazardous waste (solid) – 4958.81 Tonne</li><li>• Hazardous waste (liquid) – 903.14 Tonne</li></ul>
(ii)	Imported (if applicable):	Not applicable
2	Quantity in stock at the beginning of the year:	For Cement Plant: <ul style="list-style-type: none"><li>• Hazardous waste (solid) – 217.95 Tonne</li><li>• Hazardous waste (liquid) – 30.07 Tonne</li></ul>
3	Quantity recycled or co-processed or used:	Co-processed in Cement Kilns: <ul style="list-style-type: none"><li>• Hazardous waste (solid) – 5176.76 Tonne (including moisture loss)</li><li>• Hazardous waste (liquid) – 917.95 Tonne</li></ul>
4	Quantity of products dispatched (wherever applicable):	Not applicable
5	Quantity of waste generated:	Not applicable
6	Quantity of waste disposed:	Not applicable
7	Quantity re-exported (whether applicable):	Not applicable
8	Quantity in storage at the end of the year:	For Cement Plant: <ul style="list-style-type: none"><li>• Hazardous waste (solid) – 0.0 Tonne</li><li>• Hazardous waste (liquid) – 15.26 Tonne</li></ul>

Date: 26.06.2024  
Place: KSR Nagar

Signature:   
Designation: President (Mfg.)





**THE RAMCO CEMENTS LIMITED**

ISO 9001 ISO 14001 ISO 45001 ISO 50001  
Certified Company

Kumarasamy Raja Nagar – 521457  
Jaggayyapet Mandal, Krishna District,  
Andhra Pradesh, India  
Phone: 08654 224400-04  
Fax: 08654 222352  
E-mail: [mcljpm@ramcocements.co.in](mailto:mcljpm@ramcocements.co.in)

RCL/PCB/22/2024-2025

26<sup>th</sup> June 2024

The Environmental Engineer,  
A .P. Pollution Control Board,  
Regional Office, Plot No: 41,  
Gurunanak Road,  
Sri Kanakadurga Officers Colony,  
Vijayawada – 18.

Dear Sir,

Sub: Submission of Annual Returns of E-Wastes – Form – 3 for our Cement Plant, Thermal Power Plant & Waste Heat Recovery Plant for the financial year 2023-2024 - Reg.  
Ref: i. CFO order for plant No. APPCB/VJA/VJA/488/HO/CFO/2017- dated 02.11.2021.  
ii. CFO amendment order for plant No. APPCB/VJA/VJA/488/HO/CFO/2017- dated 02.12.2021.  
iii. CTO Amendment Order No. APPCB/VJA/VJA/488/CTO/HO/2019 dated 30.11.2022.

Please find enclosed herewith duly filled in Form – 3 - 'Form for Filing Annual Returns' of E-Wastes for the financial year 2023-2024 for our Cement Plant, Thermal Power Plant & Waste Heat Recovery Plant.

This is for your kind information please.

Thanking you,

Yours faithfully,  
for The Ramco Cements Limited,

(ASHISH KUMAR SRIVASTAVA)  
President (Mfg.)

Encl.: As above.

**FORM-3**

*[See rules 4(5), 5(5), 8(6), 9(4), 10(8), 11(9), 13 (1) (xi), 13(2)(v), 13(3)(vii) and 13(4)(v)]*

**FORM FOR FILING ANNUAL RETURNS**

[To be submitted by producer or manufacturer or refurbisher or dismantler or recycler by 30<sup>th</sup> day of June following the financial year to which that return relates].

**Quantity in Metric Tonnes (MT) and numbers**

1	Name and address of the producer or manufacturer or refurbisher or dismantler or recycler	The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), NTR Dist.  For Cement Plant, Thermal Power Plant & Waste Heat Recovery Plant								
2	Name of the authorised person and complete address with telephone and fax numbers and e-mail address	Ashish Kumar Srivastava, President (Mfg.) The Ramco Cements Limited, Kumarasamy Raja Nagar - 521 457, Jaggayyapet (M), NTR Dist. Telephone: 08654 – 224400 to 04, Fax: 08654 – 222352, e-mail: mcljpm@ramcocements.co.in								
3	Total quantity of e-waste collected or channelised to recyclers or dismantlers for processing during the year for each category of electrical and electronic equipment listed in the Schedule I (Attach list) by PRODUCERS  Details of the above									
3(A)*	BULK CONSUMERS: Quantity of e-waste	Cumulative quantity of generation in the financial year 2023-2024 for cement plant, thermal power plant, Waste Heat Recovery Plant & limestone mines: <table border="1" data-bbox="852 1371 1323 1528"> <thead> <tr> <th>Type</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>E-waste</td> <td>0.051 Tonne</td> </tr> <tr> <td>Printer Cartridges</td> <td>1.452 Tonne</td> </tr> <tr> <td>Total</td> <td>1.503 Tonne</td> </tr> </tbody> </table>	Type	Quantity	E-waste	0.051 Tonne	Printer Cartridges	1.452 Tonne	Total	1.503 Tonne
Type	Quantity									
E-waste	0.051 Tonne									
Printer Cartridges	1.452 Tonne									
Total	1.503 Tonne									
3(B)*	REFURBISHERS: Quantity of e-waste:									
3(C)*	DISMANTLERS: i. Quantity of e-waste processed (Code wise); ii. Details of materials or components recovered and sold; iii. Quantity of e-waste sent to recycler; iv. Residual quantity of e-waste sent to Treatment, Storage and Disposal Facility.									

3(D)*	<b>RECYCLERS:</b> i. <del>Quantity of e-waste processed (Code wise);</del> ii. <del>Details of materials recovered and sold in the market;</del> iii. <del>Details of residue sent to Treatment, Storage and Disposal Facility</del>									
4	Name and full address of the destination with respect to 3(A)-3(D) above	In the financial year 2023-2024, 0.78 Tonne of e-waste is disposed to M/s Global Tech Recyclers, Bangalore: <table border="1" data-bbox="870 537 1344 688"> <thead> <tr> <th>Type</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>E-waste</td> <td>0.68 Tonne</td> </tr> <tr> <td>Printer Cartridges</td> <td>0.10 Tonne</td> </tr> <tr> <td>Total</td> <td>0.78 Tonne</td> </tr> </tbody> </table>	Type	Quantity	E-waste	0.68 Tonne	Printer Cartridges	0.10 Tonne	Total	0.78 Tonne
Type	Quantity									
E-waste	0.68 Tonne									
Printer Cartridges	0.10 Tonne									
Total	0.78 Tonne									
5	Type and quantity of materials segregated <del>or recovered</del> from e-waste of different codes as applicable to 3(A)-3(D)	Cumulative quantity available as on 31.03.2024 with respect to cement plant, thermal power plant & limestone mines: <table border="1" data-bbox="870 802 1409 919"> <thead> <tr> <th>Type</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>E-waste</td> <td>0.249 Tonne</td> </tr> <tr> <td>Printer Cartridges</td> <td>1.60732 Tonne</td> </tr> </tbody> </table>	Type	Quantity	E-waste	0.249 Tonne	Printer Cartridges	1.60732 Tonne		
Type	Quantity									
E-waste	0.249 Tonne									
Printer Cartridges	1.60732 Tonne									

✓ Enclose the list of recyclers to whom e-waste have been sent for recycling.

Place: KSR Nagar  
Date: 26.06.2024

  
Signature of the authorised person

Note:-

- (1) \* Strike off whichever is not applicable.
- (2) Provide any other information as stipulated in the conditions to the authoriser.
- (3) In case filing on behalf of multiple regional offices, Bulk Consumers and Producers need to add extra rows to 1 & 3(A) with respect to each office.



**THE RAMCO CEMENTS LIMITED**

Kumarasamy Raja Nagar – 521457  
Jaggayyapet Mandal, Krishna District,  
Andhra Pradesh, India  
Phone: 08654 224400-04  
Fax: 08654 222352  
E-mail: [mclicpm@ramcocements.co.in](mailto:mclicpm@ramcocements.co.in)

RCL/PCB/75/2023-2024

09<sup>th</sup> February 2024

The Environmental Engineer  
AP Pollution Control Board,  
Regional Office, Plot No. 41,  
Gurunanak Road,  
Sri Kanakadurga Officers' Colony,  
Vijayawada – 521 008.

Dear Sir,

Sub: Submission of Form – IV – Bio-Medical Waste Returns – Calendar Year 2023 – Reg.  
Ref: Authorization Lr. No. BMW/APPCB/RO-VJA/2021-419 dated 05.08.2021.

This has reference to the above cited Bio-Medical Authorization letter issued for our Occupational Health Centre located at our cement plant. Please find enclosed herewith duly filled-in Form – IV – Bio-Medical Waste Returns for the Calendar Year 2023 (January 2023 to December 2023).

This is for your kind information and perusal please.

Thanking you,

Yours faithfully,  
For The Ramco Cements Limited,

ASHISH KUMAR SRIVASTAVA  
President (Mfg.)

Encl.: As above

**Form – IV**  
**(See rule 13)**  
**ANNUAL REPORT**

[To be submitted to the prescribed authority on or before 30<sup>th</sup> June every year for the period from January to December of the preceding year, by the occupier of Health Care Facility (HCF) or Common Bio-Medical Waste Treatment Facility (CBMWTF)]

S. No.	Particulars	
1	Particulars of the Occupier	
	(i) Name of the authorised person (occupier or operator of facility)	Authorized Person - Ashish Kumar Srivastava Operator of Facility – Dr. S Raja Kesava Prasad
	(ii) Name of HCF or CBMWTF	Occupational Health Centre (The Ramco Cements Limited)
	(iii) Address for Correspondence	Kumarasamy Raja Nagar – 521 457,
	(iv) Address of Facility	Jaggiahpet Mandal, NTR District, AP.
	(v) Tel. No, Fax. No	Tel. No.: 08654 – 224400 - 04 Fax No.: 08654 - 222352
	(vi) E-mail ID	<a href="mailto:mcljpm@ramcocements.co.in">mcljpm@ramcocements.co.in</a>
	(vii) URL of Website	<a href="http://www.ramcocements.in">www.ramcocements.in</a>
	(viii) GPS coordinates of HCF or CBMWTF	N - 16° 52' 28.7" E - 80° 07' 40.0"
	(ix) Ownership of HCF or CBMWTF	The Ramco Cements Limited ( <del>State Government or Private or Semi Govt. or any other</del> )
	(x) Status of Authorisation under the Bio-Medical Waste (Management and Handling) Rules	Authorisation No. BMW/APPCB/RO-VJA/2021-419 dated 05.08.2021 valid up to 30.09.2024.
	(xi) Status of Consents under Water Act and Air Act	Valid up to: 31.01.2027
2	Type of Health Care Facility	
	(i) Bedded Hospital	No. of Beds: 06 – Occupational Health Centre
	(ii) Non-bedded hospital (Clinic or Blood Bank or Clinical Laboratory or Research Institute or Veterinary Hospital or any other)	NA
	(iii) License number and its date of expiry	Factory Licence No. 9538 Expiry date: 31.12.2025
3	Details of CBMWTF	NA
	(i) Number healthcare facilities covered by CBMWTF	
	(ii) No. of beds covered by CBMWTF	
	(iii) Installed treatment and disposal capacity of CBMWTF	

S. No.	Particulars																																					
	(iv) Quantity of biomedical waste treated or disposed by CBMWTF																																					
4	Quantity of waste generated or disposed in kg per annum (on monthly average basis)	Record of bio-medical waste generation is being maintained. Consolidated report (on month wise details) for the calendar year 2023 is enclosed as Annexure – I.																																				
		<ul style="list-style-type: none"> <li>Yellow Category: 205.277 kg per annum</li> </ul>																																				
		<ul style="list-style-type: none"> <li>Red Category: 10.368 kg per annum</li> </ul>																																				
		<ul style="list-style-type: none"> <li>White: 1.858 kg per annum</li> </ul>																																				
		<ul style="list-style-type: none"> <li>Blue Category: 41.015 kg per annum</li> </ul>																																				
		<ul style="list-style-type: none"> <li>General Solid waste: NA</li> </ul>																																				
5	Details of the Storage, treatment, transportation, processing and Disposal Facility																																					
	(i) Details of the on-site storage facility	Size: Bins – 4 Nos.																																				
		Capacity: 20 L each – 4 Nos.																																				
		Provision of on-site storage (cold storage or any other provision) - Disposed to authorized treatment facility within stipulated time																																				
	disposal facilities	<table border="1"> <thead> <tr> <th>Type of treatment equipment</th> <th>No. of units</th> <th>Capacity, kg/day</th> <th>Quantity treated or disposed in kg per annum</th> </tr> </thead> <tbody> <tr> <td>Incinerators</td> <td></td> <td colspan="2">Not authorized</td> </tr> <tr> <td>Plasma Pyrolysis Autoclaves</td> <td></td> <td colspan="2">Not authorized</td> </tr> <tr> <td>Microwave</td> <td></td> <td colspan="2">Not authorized</td> </tr> <tr> <td>Shredder</td> <td>01</td> <td>----</td> <td>----</td> </tr> <tr> <td>Needle tip cutter or destroyer</td> <td>01</td> <td>----</td> <td>----</td> </tr> <tr> <td>Sharps encapsulation or concrete pit Deep burial pits</td> <td></td> <td colspan="2">Not authorized</td> </tr> <tr> <td>Chemical disinfection</td> <td>01</td> <td>----</td> <td>----</td> </tr> <tr> <td>Any other treatment equipment</td> <td></td> <td colspan="2">Not authorized</td> </tr> </tbody> </table>	Type of treatment equipment	No. of units	Capacity, kg/day	Quantity treated or disposed in kg per annum	Incinerators		Not authorized		Plasma Pyrolysis Autoclaves		Not authorized		Microwave		Not authorized		Shredder	01	----	----	Needle tip cutter or destroyer	01	----	----	Sharps encapsulation or concrete pit Deep burial pits		Not authorized		Chemical disinfection	01	----	----	Any other treatment equipment		Not authorized	
Type of treatment equipment	No. of units	Capacity, kg/day	Quantity treated or disposed in kg per annum																																			
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Chemical disinfection	01	----	----																																			
Any other treatment equipment		Not authorized																																				
	(iii) Quantity of recyclable wastes: sold to authorized recyclers after treatment in kg per annum	Consolidated report (on month wise details) bio-medical waste disposed to authorized recyclers after preliminary treatment for the calendar year 2023 is enclosed as Annexure – I.																																				

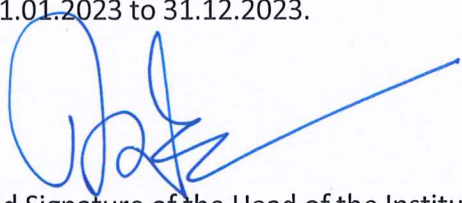


S. No.	Particulars			
	(iv) No. of vehicles used for collection and transportation of biomedical waste	Vehicle of authorized treatment facility is used for transportation of biomedical waste.		
	(v) Details of incineration ash and ETP sludge generated and disposed during the treatment of wastes in kg per annum		Quantity generated	Where disposed
		Incineration ash	Not authorized	
		ETP sludge		
	(vi) Name of the Common Bio-Medical Waste Treatment Facility Operator through which wastes are disposed of	M/s Safenviron Bio-Medical Treatment Plant, D. No. 29-3-14, Governorpet, 1 <sup>st</sup> Venkateswara Rao Street, Vijayawada, NTR District.		
	(vii) List of member HCF not handed over bio-medical waste	NA		
6	Do you have bio-medical waste management committee? If yes, attach minutes of the meetings held during the reporting period	No.		
7	Details trainings conducted on BMW			
	(i) Number of trainings conducted on BMW Management	BMW awareness training programme is done to paramedics at our OHC. Any changes / amendments in the BMW Rules will be updated during consequent training programmes.		
	(ii) number of personnel trained	06		
	(iii) number of personnel trained at the time of induction	06		
	(iv) number of personnel not undergone any training so far	NIL		
	(v) whether standard manual for training is available?	Yes		
	(vi) any other information	NA		
8	Details of the accident occurred during the year			
	(i) Number of Accidents occurred	NIL		
	(ii) Number of the persons affected	NIL		
	(iii) Remedial Action taken (Please attach details if any)	NA		
	(iv) Any Fatality occurred, details	NIL		
9	Are you meeting the standards of air Pollution from the incinerator? How many times in last year could not met the standards?	Not authorized		
	Details of Continuous online emission monitoring systems installed	Not authorized		

S. No.	Particulars	
10	Liquid waste generated and treatment methods in place. How many times you have not met the standards in a year?	Not authorized
11	Is the disinfection method or sterilization meeting the log 4 standards? How many times you have not met the standards in a year?	Not authorized
12	Any other relevant information	No

Certified that the above report is for the period from 01.01.2023 to 31.12.2023.

Date: 09.02.2024  
Place: KSR Nagar

  
Name and Signature of the Head of the Institution  
ASHISH KUMAR SRIVASTAVA  
President (Mfg.)

**The Ramco Cements Limited, Kumarasamy Raja Nagar**  
**Details of Bio Medical Waste Handled**  
**(Period - January 2023 to December 2023)**

Sl. No	Month	Weight (in kilogram) of Used Linen & Dressing material (Yellow)	Weight (in kilogram) of Used Disposable Syringes (without needles & fixed needle syringes) & Intravenous sets (Red)	Weight (in kilogram) of Used Needles, needles from needle tip cutter & blades (White)	Weight (in kilogram) of Broken or discarded glass medicine vials & Ampoules (Blue)
1	Jan-23	11.6	0	0	2.48
2	Feb-23	14.8	0	0	1.84
3	Mar-23	14.575	1.3	0	4.04
4	Apr-23	18.28	2.54	0	3.55
5	May-23	18.56	0.8	0	5.66
6	Jun-23	23.65	0	0	3.76
7	Jul-23	15.195	0	0	2.42
8	Aug-23	16.095	0	0	2.01
9	Sep-23	17.167	0.7	0	2.949
10	Oct-23	21.896	1.148	0	3.252
11	Nov-23	17.538	1.62	0	3.9
12	Dec-23	15.921	2.26	1.858	5.154
	Grand Total	205.277	10.368	1.858	41.015
	Monthly average	17.106	0.864	0.155	3.418

**THE RAMCO CEMENTS LIMITED, KSR NAGAR**  
**ENVIRONMENTAL PROTECTION EXPENDITURE FOR YEAR 2023-2024**

S. No.	DESCRIPTION	Expenditure incurred in 2023-2024, Rs.	Budget for 2024-2025, Rs.
<b>I.</b>	<b>Recurring Cost - Plant</b>		
	Electrical units for operation of PCE (29522760.8*3.03)	89453965	120000000
	Electrical units for operation of STP (41941.5*3.03)	127083	
	APPCB Analysis Charges	12080	
	CPCB & APPCB - Consent / authorization fees	78800990	
	BF Maintenance - M/s Sri Ganesh Traders & Engineering Works	3322703	
	Road sweepers, vacuum cleanear, mobile water sprinkler & dozer	3479473	
	Environmental Monitoring Charges - Plant & Mines	1340214	
	STP Operation charges - M/s Deepak Environs	1347691	
	CAAQMS AMC - M/s Swan	278400	
	CPCB & APPCB transmission - Yokogawa - AMC	83491	
	CPCB & APPCB transmission - Glens - AMC	87000	
	BMW handling charges - M/s Safenviron	14757	
	Operation of water treatment plant	378505	
	Operation of STP & Vermicompost pits - chemicals & consumables	12000	
	Garbage collection, segregation and transportation	772200	
	<b>Total (Rs.)</b>	<b>179510552</b>	
<b>II.</b>	<b>Plant - APCE Modifications</b>		
	Replacement of filter bags, accessories, etc	33019182	5000000
	<b>Total (Rs.)</b>	<b>33019182</b>	
<b>III.</b>	<b>Mines - Recurring</b>		
	Nonel detonators	5247000	21720000
	Wet drilling	652000	
	Reclamation	64843000	
	Water sprinkling	6918000	
	<b>Total (Rs.)</b>	<b>77660000</b>	
<b>IV.</b>	<b>Plantation (Plant &amp; Mines)</b>		
	Mines - M/s Sri Laxmi Narasimha	2511990	8000000
	Plant & Colony - Pragathi	2654399	
	Plant & Colony - Ramdasu Naik	1606281	
	Colony - Bharathi Contract Works	1225467	
	Budawada - Bhavana Plantation	2189365	
	Purchase of sapplings from prative / government agencies	30437	
	<b>Total (Rs.)</b>	<b>10217939</b>	
<b>V.</b>	<b>Capital - Plant &amp; Mines</b>		
	Additioanl bag filters installed	7773333	6400000
	Solid haz. Waste shed modification	15824	
	DSS for Budawada crusher hopper	810000	
	Bio-digester	85000	
	Check dam construction at Budawada (RF) mine	1012129	
	RO water plant	48432	
	<b>Total (Rs.)</b>	<b>9744718</b>	
	<b>Grand Total (Rs.)</b>	<b>310152391</b>	<b>161120000</b>
	<b>Grand Total (Lakh Rs.)</b>	<b>3101.52</b>	<b>1611.20</b>



**Government of Andhra Pradesh**  
**Rural Water Supply & Sanitation Department**  
**State Level Water Testing Laboratory**

O/o The Project Director,  
 State Water & Sanitation Mission,  
 "C" Block Vasudha shelters, Lic Colony, Gollapudi, Vijayawada -521225

**Report on Bacteriological Parameters of Water (Drinking)**

Date of Collection :28.12.2023

Received Date : 28.12.2023

Recived From : The Ramco Cements Ltd-2

Location : Jayantipuram Village,Jaggayyapeta(MD),NTR Dist.

Date Of Issue : 03.01.2024

Sl. No.	Lab Ref no	Source	H <sub>2</sub> S-producing Bacteria	Coliform/ CFU/ 100ml	E.Coli/ CFU/ 100ml	Residual Free Chlorine
1	SLL/BCT/Private/050	R.O	Negative	<1	0	Nil

**Results :** Coliform bacteria and E.coli bacteria is not detected in 100ml of sample.

**Remarks:** As per Drinking water - specification (IS 10500:2012) the total coliform bacteria and E.Coli or Thermo tolerant Coliform bacterial shall not be detected in any 100 ml. of water sample, which is intended for drinking purpose.

**Note :**

- 1.The above said results are related to the sample tested only.
- 2.Report shall not be reproduced half or full without approval / permission of the laboratory.
- 3.Sample is collected by the customer and not laboratory.

*T.N.Sandee*  
 Lab.Microbiologist

*[Signature]*  
 Asst. Chemist  
 State Level Water Testing Laboratory  
 Rural Water Supply & Sanitation Dept. A.P.  
 - VIJAYAWADA



**Government of Andhra Pradesh**  
Rural Water Supply & Sanitation Department  
**State Level Water Testing Laboratory**

O/o The Project Director  
State Water Supply & Sanitation Mission  
"C" Block, Vasudha shelter, LIC colony, Gollapudi, Vijayawada - 521225

**TEST REPORT ON CHEMICAL ANALYSIS OF WATER(DRINKING)**  
General Physico- Chemical Parameters

Sample received from : The Ramco Cements Ltd.

Location : Jayanthipuram, Jaggayyapeta(Md), NTR Dist

Test Report ID No : SLL/SWSM/RWS/ Private/080

Description of the test items: Water Sample

Date of Collection : 28.12.2023

Date of Analysis : 01.01.2024

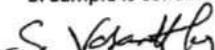
Date of Receipt : 28.12.2023


Date of issue: 04.01.2024

Sl.No.	Physico-Chemical Parameters	Units	Test result of the water sample	As per IS (10500 - 2012)	
				Requirement (Acceptable Limit)	Permissible Limit (in the absence of alternative source)
1	Colour	Pt-Co	0	5	15
2	Turbidity	NTU	0	1	5
3	pH		7.29	6.5-8.5	No relaxation
4	Electrical Conductivity	micromhos/cm	158	-	-
5	Total Dissolved Solids	mg/L	102	500	2000
6	Salinity	gm/L	0.05	0.48	1.836
7	Total Alkalinity as CaCO <sub>3</sub>	mg/L	14	200	600
8	Total Hardness as CaCO <sub>3</sub>	mg/L	16	200	600
9	Calcium as Ca <sup>++</sup>	mg/L	4	75	200
10	Magnesium as Mg <sup>++</sup>	mg/L	1	30	100
11	Flouride as F <sup>-</sup>	mg/L	0.21	1.0	1.5
12	Chloride as Cl <sup>-</sup>	mg/L	9	250	1000
13	Nitrate as NO <sub>3</sub> <sup>-</sup>	mg/L	0.1	45	No relaxation
14	Sulphate as SO <sub>4</sub> <sup>-2</sup>	mg/L	23	200	400
15	Total Iron as Fe	mg/L	0.2	1.0	No relaxation
16	Sodium Na <sup>+</sup>	mg/L	15.8	-	-
17	Potassium K <sup>+</sup>	mg/L	1.8	-	-
18	Silica	mg/L	1.6	-	-

Note :

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3. Sample is collected by the customer and not by the laboratory

  
Lab. Chemist

  
Asst. Chemist  
State Level Water Testing Laboratory  
Rural Water Supply & Sanitation Dept. A P  
VIJAYAWADA

**THE RAMCO CEMENTS LIMITED**  
**WATER LEVEL DATA - JAYANTHIPURAM LIMESTONE MINE (NORTH BAND)**  
**PERIOD - APRIL 2023 TO MARCH 2024**

**I. PIEZOMETER DETAILS:**

Location: Bore Well Footwall Side  
 RL - (+)40.013m  
 Latitude - N16° 52' 28.4" Longitude - E80° 06' 42.1"  
 Depth of well - 20.1 m

Location: Open Well Near X Road  
 RL - (+)40.01m  
 Latitude - N16 51 29.4 Longitude - E80 07 19.3  
 Depth of well - 20.0 m

Location: Near Magazine  
 RL - (+)42m  
 Latitude - N16 51 40.10 Longitude - E80 07 20.00  
 Depth of well - 50.0 m

Location: Pit-2 Area  
 RL - (+)48m  
 Latitude - N 16 52 39.0 Longitude - E 80 06 15.5  
 Depth of well - 50.0 m

**II. WATER LEVEL DATA**

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	4.59
2	30.04.2023	4.61
3	16.05.2023	4.62
4	31.05.2023	5.19
5	16.06.2023	5.65
6	30.06.2023	6.14
7	16.07.2023	5.49
8	31.07.2023	4.86
9	16.08.2023	4.08
10	31.08.2023	3.60
11	16.09.2023	3.15
12	29.09.2023	2.90
13	16.10.2023	3.13
14	31.10.2023	3.37
15	16.11.2023	4.23
16	30.11.2023	4.27
17	16.12.2023	4.30
18	30.12.2023	4.45
19	16.01.2024	4.49
20	31.01.2024	5.21
21	16.02.2024	5.90
22	29.02.2024	6.25
23	16.03.2024	8.02
24	31.03.2024	8.95

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	2.78
2	30.04.2023	2.82
3	16.05.2023	2.83
4	31.05.2023	2.68
5	16.06.2023	2.45
6	30.06.2023	2.38
7	16.07.2023	2.34
8	31.07.2023	2.29
9	16.08.2023	2.22
10	31.08.2023	2.16
11	16.09.2023	2.10
12	29.09.2023	1.90
13	16.10.2023	1.86
14	31.10.2023	1.88
15	16.11.2023	2.06
16	30.11.2023	2.24
17	16.12.2023	2.29
18	30.12.2023	2.35
19	16.01.2024	2.40
20	31.01.2024	2.65
21	16.02.2024	2.86
22	29.02.2024	3.01
23	16.03.2024	3.56
24	31.03.2024	3.84

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	9.76
2	30.04.2023	9.51
3	16.05.2023	9.36
4	31.05.2023	9.18
5	16.06.2023	9.02
6	30.06.2023	8.85
7	16.07.2023	8.71
8	31.07.2023	8.67
9	16.08.2023	8.45
10	31.08.2023	8.40
11	16.09.2023	8.54
12	29.09.2023	8.79
13	16.10.2023	8.54
14	31.10.2023	8.30
15	16.11.2023	9.10
16	30.11.2023	9.25
17	16.12.2023	9.37
18	30.12.2023	9.57
19	16.01.2024	9.62
20	31.01.2024	9.64
21	16.02.2024	9.68
22	29.02.2024	9.85
23	16.03.2024	9.89
24	31.03.2024	9.94

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	5.28
2	30.04.2023	5.86
3	16.05.2023	6.41
4	31.05.2023	6.45
5	16.06.2023	6.43
6	30.06.2023	6.40
7	16.07.2023	5.84
8	31.07.2023	5.19
9	16.08.2023	4.64
10	31.08.2023	4.20
11	16.09.2023	4.22
12	29.09.2023	4.26
13	16.10.2023	3.82
14	31.10.2023	4.54
15	16.11.2023	5.76
16	30.11.2023	4.50
17	16.12.2023	4.30
18	30.12.2023	4.4
19	16.01.2024	4.47
20	31.01.2024	5.54
21	16.02.2024	6.72
22	29.02.2024	6.85
23	16.03.2024	7.25
24	31.03.2024	7.64

**THE RAMCO CEMENTS LIMITED**  
**WATER LEVEL DATA - JAYANTHIPURAM LIMESTONE MINE (SOUTH BAND)**  
**PERIOD - APRIL 2023 TO MARCH 2024**

**I. PIEZOMETER DETAILS:**

Location: West Side Bore Well, Near Substation

RL - (+)36.00m

Latitude - N16° 51' 32.4" Longitude - E80° 06' 36.0"

Depth of well - 35.05 m

Location: North Side of ML

RL - (+)37.00m

Latitude - N 16° 51' 29.0" Longitude - E 80° 06' 44.3"

Depth of well - 50.00 m

Location: South Side of ML

RL - (+)43.20m

Latitude - N 16° 51' 02.8" Longitude - E 80° 06' 22.3"

Depth of well - 27.44 m

**II. WATER LEVEL DATA**

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	9.92
2	30.04.2023	9.98
3	16.05.2023	9.95
4	31.05.2023	9.62
5	16.06.2023	9.04
6	30.06.2023	8.86
7	16.07.2023	8.52
8	31.07.2023	8.06
9	16.08.2023	9.97
10	31.08.2023	10.03
11	16.09.2023	9.79
12	29.09.2023	9.72
13	16.10.2023	10.06
14	31.10.2023	10.18
15	16.11.2023	10.33
16	30.11.2023	10.28
17	16.12.2023	10.28
18	30.12.2023	11.07
19	16.01.2024	11.22
20	31.01.2024	11.42
21	16.02.2024	11.85
22	29.02.2024	12.14
23	16.03.2024	12.53
24	31.03.2024	12.84

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	8.97
2	30.04.2023	8.93
3	16.05.2023	8.89
4	31.05.2023	8.86
5	16.06.2023	8.73
6	30.06.2023	8.73
7	16.07.2023	8.70
8	31.07.2023	8.62
9	16.08.2023	9.01
10	31.08.2023	9.06
11	16.09.2023	8.80
12	29.09.2023	8.75
13	16.10.2023	9.09
14	31.10.2023	9.22
15	16.11.2023	10.05
16	30.11.2023	10.12
17	16.12.2023	10.18
18	30.12.2023	11.63
19	16.01.2024	12.13
20	31.01.2024	12.34
21	16.02.2024	12.11
22	29.02.2024	12.57
23	16.03.2024	13.09
24	31.03.2024	12.66

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	7.56
2	30.04.2023	7.77
3	16.05.2023	7.65
4	31.05.2023	7.32
5	16.06.2023	7.25
6	30.06.2023	7.20
7	16.07.2023	5.50
8	31.07.2023	5.15
9	16.08.2023	5.32
10	31.08.2023	5.28
11	16.09.2023	5.35
12	29.09.2023	5.46
13	16.10.2023	5.78
14	31.10.2023	6.23
15	16.11.2023	6.38
16	30.11.2023	6.95
17	16.12.2023	7.24
18	30.12.2023	7.26
19	16.01.2024	7.35
20	31.01.2024	7.42
21	16.02.2024	7.48
22	29.02.2024	7.54
23	16.03.2024	7.68
24	31.03.2024	7.80

**THE RAMCO CEMENTS LIMITED**  
**WATER LEVEL DATA - RAVIRALA LIMESTONE MINE (RESERVE FOREST)**  
**PERIOD - APRIL 2023 TO MARCH 2024**

**I. PIEZOMETER DETAILS:**

Location: South Side of Lease

RL - (+)51.00m

Latitude - N 16° 50' 27.6"      Longitude - E80° 07' 58.2"

Depth of well - 45.0 m

Location: East Side of Mining Lease near 7-2 BH pillar

RL - (+) 61.00m

Latitude - N16° 50' 20.4"      Longitude - E80° 08' 55.1"

Depth of well - 24.50 m

Location: West Side of Haul road

RL - (+) 44.00m

Latitude - N16° 50' 33.2"      Longitude - E80° 08' 05.7"

Depth of well - 35.0 m

Location: South Side Near BH No. 3-7A

RL - (+) 55.00m

Latitude - N16° 50' 11.5"      Longitude - E80° 08' 39.5"

Depth of well - 50.0 m

**II. WATER LEVEL DATA**

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	19.32
2	30.04.2023	19.85
3	16.05.2023	20.02
4	31.05.2023	19.86
5	16.06.2023	18.75
6	30.06.2023	17.60
7	16.07.2023	17.34
8	31.07.2023	17.08
9	16.08.2023	16.85
10	31.08.2023	16.78
11	16.09.2023	16.85
12	29.09.2023	16.78
13	16.10.2023	17.15
14	31.10.2023	17.56
15	16.11.2023	17.97
16	30.11.2023	18.14
17	16.12.2023	18.43
18	30.12.2023	18.64
19	16.01.2024	18.82
20	31.01.2024	18.97
21	16.02.2024	19.24
22	29.02.2024	19.46
23	16.03.2024	19.61
24	31.03.2024	19.84

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	19.29
2	30.04.2023	19.38
3	16.05.2023	19.41
4	31.05.2023	19.52
5	16.06.2023	19.50
6	30.06.2023	19.43
7	16.07.2023	19.29
8	31.07.2023	19.28
9	16.08.2023	18.94
10	31.08.2023	18.79
11	16.09.2023	18.95
12	29.09.2023	19.01
13	16.10.2023	19.04
14	31.10.2023	19.09
15	16.11.2023	19.12
16	30.11.2023	19.21
17	16.12.2023	19.35
18	30.12.2023	19.48
19	16.01.2024	19.64
20	31.01.2024	19.79
21	16.02.2024	19.92
22	29.02.2024	20.14
23	16.03.2024	20.22
24	31.03.2024	20.34

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	22.10
2	30.04.2023	22.49
3	16.05.2023	22.51
4	31.05.2023	22.98
5	16.06.2023	21.86
6	30.06.2023	21.76
7	16.07.2023	21.52
8	31.07.2023	20.67
9	16.08.2023	21.04
10	31.08.2023	21.02
11	16.09.2023	20.85
12	29.09.2023	21.42
13	16.10.2023	21.56
14	31.10.2023	21.69
15	16.11.2023	22.15
16	30.11.2023	22.39
17	16.12.2023	20.26
18	30.12.2023	20.78
19	16.01.2024	20.97
20	31.01.2024	21.04
21	16.02.2024	21.41
22	29.02.2024	21.79
23	16.03.2024	22.45
24	31.03.2024	22.81

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	26.49
2	30.04.2023	26.58
3	16.05.2023	26.89
4	31.05.2023	27.01
5	16.06.2023	26.86
6	30.06.2023	26.81
7	16.07.2023	26.43
8	31.07.2023	26.18
9	16.08.2023	26.71
10	31.08.2023	26.98
11	16.09.2023	26.71
12	29.09.2023	26.40
13	16.10.2023	26.37
14	31.10.2023	26.64
15	16.11.2023	26.69
16	30.11.2023	27.01
17	16.12.2023	26.21
18	30.12.2023	26.74
19	16.01.2024	27.29
20	31.01.2024	27.47
21	16.02.2024	27.79
22	29.02.2024	28.06
23	16.03.2024	28.45
24	31.03.2024	28.83

## THE RAMCO CEMENTS LIMITED

**WATER LEVEL DATA - RAMCO BUDAWADA LIMESTONE MINE (RESERVE FOREST)  
PERIOD - APRIL 2023 TO MARCH 2024**

Location: North Side of Lease

RL - (+)51.00m

Latitude N 16 51 48.0

Longitude - E80 04 34.7

Depth of well - 45.0 m

Location: South West Side of Lease

RL - (+)51.00m

Latitude - N 16 51 17.7

Longitude - E80 04 01.6

Depth of well - 45.0 m

Location: West Side of Lease

RL - (+)51.00m

Latitude - N 16 51 30.2

Longitude -E80 03 47.7

Depth of well - 45.0 m

**II. WATER LEVEL DATA**

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	26.15
2	30.04.2023	26.73
3	16.05.2023	27.45
4	31.05.2023	27.95
5	16.06.2023	28.45
6	30.06.2023	28.92
7	16.07.2023	24.14
8	31.07.2023	24.32
9	16.08.2023	25.19
10	31.08.2023	25.11
11	16.09.2023	24.38
12	29.09.2023	22.79
13	16.10.2023	21.89
14	31.10.2023	25.03
15	16.11.2023	24.06
16	30.11.2023	25.01
17	16.12.2023	25.56
18	30.12.2023	26.02
19	16.01.2024	26.45
20	31.01.2024	26.94
21	16.02.2024	27.25
22	29.02.2024	27.81
23	16.03.2024	28.45
24	31.03.2024	29.16

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	15.78
2	30.04.2023	16.93
3	16.05.2023	17.42
4	31.05.2023	18.98
5	16.06.2023	19.52
6	30.06.2023	20.05
7	16.07.2023	14.53
8	31.07.2023	14.59
9	16.08.2023	15.12
10	31.08.2023	15.10
11	16.09.2023	15.06
12	29.09.2023	14.32
13	16.10.2023	14.56
14	31.10.2023	15.01
15	16.11.2023	14.92
16	30.11.2023	14.68
17	16.12.2023	15.65
18	30.12.2023	16.02
19	16.01.2024	17.05
20	31.01.2024	17.95
21	16.02.2024	18.67
22	29.02.2024	20.12
23	16.03.2024	21.25
24	31.03.2024	21.96

S. No.	Date of Monitoring	Water Level (m), bgl
1	16.04.2023	24.28
2	30.04.2023	24.56
3	16.05.2023	24.86
4	31.05.2023	25.62
5	16.06.2023	26.04
6	30.06.2023	26.78
7	16.07.2023	23.26
8	31.07.2023	23.76
9	16.08.2023	23.55
10	31.08.2023	22.19
11	16.09.2023	22.06
12	29.09.2023	19.49
13	16.10.2023	19.43
14	31.10.2023	19.98
15	16.11.2023	19.62
16	30.11.2023	19.44
17	16.12.2023	21.02
18	30.12.2023	22.43
19	16.01.2024	23.56
20	31.01.2024	24.61
21	16.02.2024	26.18
22	29.02.2024	27.56
23	16.03.2024	28.94
24	31.03.2024	29.54

**THE RAMCO CEMENTS LTD., KSR NAGAR  
DETAILS OF RAIN WATER HARVESTING PITS**

S. No.	LOCATION	TO ACCOMMODATE	PIT NUMBERING	No. OF PITS	ROOF TOP AREAS (m <sup>2</sup> )	PAVED AREA (m <sup>2</sup> )	UNPAVED AREA (m <sup>2</sup> )	PIT DIMENSIONS		LATITUDE	LONGITUDE
								LENGTH, m	WIDTH, m		
<b>I. COLONY AREA</b>											
1	C+ Qtrs buildings(C+1 -C+8)	Building roof top & Open yard	10	4	1200			3.45	1.5	16°52'26.55" N	80°07'45.85" E
			11					3.45	1.5	16°52'24.84" N	80°07'45.61" E
			12					3.45	1.5	16°52'25.05" N	80°07'44.10" E
			13					3.45	1.5	16°52'26.86" N	80°07'44.32" E
2	New school building	Building roof top & Open yard	1	4	3075			3.2	1.6	16°52'33.29" N	80°07'48.71" E
			2					3.1	1.8	16°52'32.42" N	80°07'46.66" E
			3					3.3	2.7	16°52'30.19" N	80°07'49.25" E
			4					2.2	3.2	16°52'28.98" N	80°07'47.78" E
3	Occupational Health Centre	Building roof water	6	2	200			3.3	1.7	16°52'28.03" N	80°07'39.85" E
			7					3.1	2.2	16°52'29.01" N	80°07'39.94" E
4	New Administration building	Building roof top & Open yard	9	1	540			3.2	2.4	16°52'30.10" N	80°07'35.84" E
5	Reading room	Building roof top water	8	1	120			1.1	1.8	16°52'26.79" N	80°07'41.36" E
6	D40 area	D40 quarter open yard	23	1			500	2.3	2.3	16°52'17.48" N	80°07'34.77" E
7	B Type quarter area (near B2 1 No. and B4 backside 1 No.)	School ground	21	2			1000	2.7	2.2	16°52'18.27" N	80°07'36.65" E
			22					1.7	1.7	16°52'20.10" N	80°07'36.08" E
8	C30	Open yard	15	1			200	2.3	2.5	16°52'26.13" N	80°07'43.14" E
9	Near Volley Ball ground	East of play ground	16	1		200		3.8	2	16°52'24.58" N	80°07'41.27" E
10	Near culvert @ Cricket ground	Open land near C ground	5	1			3000	3.4	2.7	16°52'32.07" N	80°07'44.40" E
11	Bachelor hostel area	Rain water collection pit through natural ground	14	2		550		2.1	2.3	16°52'26.75" N	80°07'31.59" E
			20					1.7	2.8	16°52'25.34" N	80°07'31.05" E
12	CMD guest house area	Building roof top & Open yard	17	3	1000			1.5	1.5	16°52'24.0" N	80°07'44.43" E
			18					0.6	0.9	16°52'23.71" N	80°07'43.52" E
			19					0.7	0.7	16°52'23.56" N	80°07'44.53" E
13	D - 1 block Apartment	D41 - D44 block roof top and open land	39	1	200			3	1.6	16°52'16.74" N	80°07'33.50" E
14	D - 2 block Apartment	D45 - D48 block roof top and open land	40	1	200			3.4	2.1	16°52'16.59" N	80°07'32.04" E
15	D - 3 block Apartment	D49 - D52 block roof top and open land	41	1	200			3.3	1.7	16°52'16.68" N	80°07'32.15" E
16	D -4 block Apartment	D53 - D56 block roof top and open land	42	1	200			2.6	1.8	16°52'16.55" N	80°07'33.28" E
17	D - 5 block Apartment	D57- D60 block roof top and open land	43	1	200			2.8	1.8	16°52'16.41" N	80°07'34.34" E
18	D - 6 block Apartment	D61 - D64 block roof top and open land	44	1	200			2	2	16°52'18.75" N	80°07'32.10" E
19	D - 7 block Apartment	D64 - D68 block roof top and open land	45	1	200			2.5	2	16°52'18.48" N	80°07'33.31" E
20	E - 1 Block Apartment	E41 - E52 block roof top and open land	27	2	295			3.3	1.7	16°52'20.92" N	80°07'30.66" E
			28					3.2	1.6	16°52'19.92" N	80°07'30.12" E
21	E - 2 Block Apartment	E53 - E64 block roof top and open land	25	2	295			3.3	2.1	16°52'22.31" N	80°07'30.97" E
			26					3.3	2.1	16°52'21.23" N	80°07'30.77" E
22	F - 1 Block Apartment	F75 - F86 block roof top and open land	29	2	293			3	2	16°52'18.04" N	80°07'30.41" E
			30					3.4	2.2	16°52'19.35" N	80°07'30.39" E
23	F - 2 Block Apartment	F87 - F98 block roof top and open land	31	2	293			3	2.1	16°52'16.38" N	80°07'30.18" E
			32					3	2.1	16°52'17.76" N	80°07'30.27" E
24	F - 3 Block Apartment	F99 - F110 block roof top and open land	33	2	293			3.3	2.3	16°52'16.53" N	80°07'28.64" E
			34					3	2.1	16°52'17.75" N	80°07'28.85" E
25	F - 4 Block Apartment	F111 - F122 block roof top and open land	35	2	293			2.9	1.3	16°52'18.33" N	80°07'28.98" E
			36					2.6	1.8	16°52'19.53" N	80°07'28.99" E
26	F - 5 Block Apartment	F123 - F134block roof top and open land	37	2	293			2.9	1.3	16°52'19.96" N	80°07'29.10" E
			38					2.4	1.5	16°52'21.09" N	80°07'29.33" E
27	STP Area	Rain water collection pit through natural ground	46	1		400	1000	1.5	1.5	16°52'20.61" N	80°07'34.85" E
28	C-Type quarters area	Rain water collection pit through natural ground	47	1			500	2.8	2.7	16°52'22.97" N	80°07'39.48" E
29	C-18 Quarter backside	Rain water collection pit through natural ground	48	1			1000	2.5	2.5	16°52'22.06" N	80°07'40.37" E
30	E3& E4 Block Apartments	Roof tp and open land	49	1	305			1.2	1.3	16°52'23.53" N	80°07'30.43" E
<b>COLONY TOTAL</b>				<b>48</b>							
<b>II. PLANT AREA</b>											
31	CCR	Roof top and open land	1	1	1100			3	2	16°52'33.16" N	80°07'19.21" E
32	Mines office	Roof top and open land	2	2	350			1.4	1.4	16°52'21.07" N	80°07'11.11" E
			3					1.5	1.5	16°52'21.58" N	80°07'11.82" E
33	Thermal Power Plant area	Cooling tower building surrounding surface water	4	1				1.5	1.5	16°52'26.34" N	80°07'11.11" E
<b>PLANT TOTAL</b>				<b>4</b>							
<b>Total</b>				<b>52</b>	<b>11345</b>	<b>1150</b>	<b>7200</b>				

## Annexure - XIX

**NOISE LEVEL MONITORING – PLANT June. 2023**

Sl. No.	Section	Location	Date of measurement	Time of measurement	Noise Level dB(A)	Standard
1	Limestone Crusher	Crusher front side	04-06-2023	08.30 am	73	85
2	Additive Crusher	Additive Crusher front side Crusher front side	04-06-2023	08.40 am	69	85
3	Coal Crusher	Coal Crusher front side	04-06-2023	08.45 am	69	85
4	Raw Mill – I	Near mill	04-06-2023	09.00 am	66	
5	Raw Mill - II	Near mill	04-06-2023	09.10 am	65	85
6	Coal Mill – I	Near mill	04-06-2023	09.20 am	61	
7	Coal Mill - II	Near mill	04-06-2023	09.40 am	60	85
8	Kiln – I	Outlet	04-06-2023	09.50 am	63	
9	Kiln - II	Outlet	04-06-2023	10.00 am	62	85
10	Cooler – I	Near drive	04-06-2023	10.10 am	59	
11	Cooler – II	Near drive	07-06-2023	10.20 am	59	85
12	VRPM	Near mill	07-06-2023	10.40 am	68	85
13	Cement Mill	Near mill	07-06-2023	11.00 am	70	85
14	Slag Mill	Near mill	07-06-2023	11.20 am	68	85
15	Packing Plant	Packer floor	07-06-2023	02.00 pm	66	85
16	Power Plant - DG		07-06-2023	02.20 pm	84	85
17	Pump House	Office room	09-06-2023	02.40pm	64	85
18	Mechanical Workshop	Near lathe machines	09-06-2023	03.00pm	59	85
19	Electrical Workshop	Inside building	09-06-2023	03.20pm	53	85
20	Locomotive	Shed inside	09-06-2023	03.35pm	69	85
21	Auto Garage	Shed inside	09-06-2023	03.50pm	55	85
22	Time Office	Office room	09-06-2023	04.10pm	53	85
23	CCR building	Inside CCR	09-06-2023	04.30pm	62	85
24	Mines office	Office room	09-06-2023	04.40pm	61	85

Noise level meter details : Make : MCM INSTRUMENTS  
 Calibrated on 20-04-2023  
 Next calibration due on 19-04-2024

Measured by

*[Handwritten Signature]*





**NOISE LEVEL MONITORING – PLANT Dec. 2023**

Sl. No.	Section	Location	Date of measurement	Time of measurement	Noise Level dB(A)	Standard
1	Limestone Crusher	Crusher front side	02-12-2023	08.30 am	70	85
2	Additive Crusher	Additive Crusher front side Crusher front side	02-12-2023	09.00 am	68	85
3	Coal Crusher	Coal Crusher front side	02-12-2023	09.30 am	68	85
4	Raw Mill – I	Near mill	02-12-2023	10.00 am	NR	85
5	Raw Mill - II	Near mill	02-12-2023	10.30 am	64	85
6	Coal Mill – I	Near mill	02-12-2023	11.00 am	NR	85
7	Coal Mill - II	Near mill	03-12-2023	09.00 am	57	85
8	Kiln- I	Outlet	03-12-2023	09.30 am	NR	85
9	Kiln - II	Outlet	03-12-2023	10.00 am	61	85
10	Cooler – I	Near drive	03-12-2023	11.00am	NR	85
11	Cooler – II	Near drive	03-12-2023	02.30pm	59	85
12	VRPM	Near mill	03-12-2023	03.00pm	67	85
13	Cement Mill	Near mill	05-12-2023	08.30am	73	85
14	Slag Mill	Near mill	05-12-2023	09.00am	67	85
15	Packing Plant	Packer floor	05-12-2023	09.30am	66	85
16	Power Plant - DG		05-12-2023	10.15am	NR	85
17	Pump House	Office room	05-12-2023	10.45am	64	85
18	Mechanical Workshop	Near lathe machines	05-12-2023	11.30am	56	85
19	Electrical Workshop	Inside building	08-12-2023	01.30pm	50	85
20	Locomotive	Shed inside	08-10-2023	02.00pm	67	85
21	Auto Garage	Shed inside	08-12-2023	02.40pm	54	85
22	Time Office	Office room	08-12-2023	03.00pm	52	85
23	CCR building	Inside CCR	08-12-2023	03.30pm	61	85
24	Mines office	Office room	08-12-2023	04.00pm	60	85

Noise level meter details : Make : MCM INSTRUMENTS  
 Calibrated on 20-04-2023  
 Next calibration due on 19-04-2024

Measured by : 

Annexure - XX

**THE RAMCO CEMENTS LIMITED, KSR NAGAR**  
**CSR EXPENDITURE FOR THE FINANCIAL YEARS 2003-2024 (21 YEARS)**

<b>Year</b>	<b>Amount, Rs.</b>
2003-2014 (11 years)	40579555.44
2014-2015	5417753.13
2015-2016	4240135
2016-2017	8560037.82
2017-2018	10530418.37
2018-2019	10254827.83
2019-2020	8476147.31
2020-2021	13820287
2021-2022	11827267
2022-2023	12010872
2023-2024	10120449
Total for 21 years (2003-2024)	135837749.9
Average for 21 years (2003-2024)	6468464.281