UTCL/RKCW/2023-24/700

Date 07.08.2023

To,

The Member Secretary

Uttarakhand Environment Protection and

Pollution Control Board

Gaura Devi Prayavaran Bhawan

46B, IT Park, Sahastradhara Road

Dehradun (Uttarakhand).

Subject: Environment Statement Report for the period from 1st April 2022 to 31st March 2023.

Sir,

1. Kindly refer to your letter no. UEPPCB/HO/Con-J-43/2019/610 dated 24.08.2019.
2. Environment statement report in respect of **UltraTech Cement Limited Unit-Roorkee Cement Works**, Roorkee for the FY 2022-23 has been prepared and is attached herewith, as desired.
3. The above is for your kind perusal please.

Thanking you and assuring you for our best cooperation at all time.

Your Truly

For UltraTech Cement Limited

(Unit: Roorkee Cement Works)

Dinesh Khatri

(Sr. Vice President & GUH)

CC:- The Regional Officer

Uttarakhand Environment Protection and

Pollution Control Board

Near Irrigation Office (Gang Nahar)

Roorkee- 247667 (Uttarakhand)

Encl. As above

UltraTech Cement Limited
(Unit: Roorkee Cement Works)
Village-Nalheri Dehviran, PO-Nalhera Anantpur, Roorkee,
Distt-Haridwar-247668,Uttarakhand T: (01332-231942/45/46), Fax-231941
Registered Office : 'B'-Wing, Ahura Center, 2nd Floor, Mahakali Caves Road, Andheri (East), Mumbai 400 093

ULTRATECH CEMENT LIMITED

(Form –V)

ENVIRONMENT STATEMENT REPORT

(Unit:- Roorkee Cement Works)

[2022-23]

ROORKEE CEMENT WORKS

(A UNIT OF ULTRATECH CEMENT LIMITED)

ROORKEE, DISTRICT-HARIDWAR (UTTARAKHAND)

UltraTech Cement Ltd Company Profile

UltraTech Cement Limited is the cement flagship company of the Aditya Birla Group. A USD 7.9 billion building solutions powerhouse, UltraTech is the largest manufacturer of grey cement and ready-mix concrete (RMC) in India. It is also one of the leading players in the white cement segment in India. It is the third largest cement producer in the world, excluding China. UltraTech is the only cement company globally (outside of China) to have 100+ MTPA of cement manufacturing capacity in a single country. The Company's business operations span UAE, Bahrain, Sri Lanka and India.

UltraTech has a consolidated capacity of 137.85 Million Tonnes Per Annum (MTPA) of grey cement. UltraTech has 23 integrated manufacturing units, 29 grinding units, one Clinkerisation unit and 8 Bulk Packaging Terminals. In the white cement segment, UltraTech goes to market under the brand name of Birla White. It has one White Cement unit and three Wall Care putty unit, with a current capacity of 1.98 MTPA. With 230+ Ready Mix Concrete (RMC) plants in 100+ cities, UltraTech is the largest manufacturer of concrete in India. It also has a slew of specialty concretes that meet specific needs of discerning customers. The Building Products business is an innovation hub that offers an array of scientifically engineered products to cater to new-age constructions.

UltraTech pioneered the UltraTech Building Solutions (UBS) concept to provide individual home builders with a one-stop-shop solution for building their homes. This is the first pan-India multi-category retail chain catering to the needs of individual home builders (IHBs). The purpose of this initiative is to engage with home builders at all stages of the construction cycle, empower them with quality construction products and services, and assist in the completion of their dream homes.

UltraTech is a founding member of Global Cement and Concrete Association (GCCA). It is a signatory to the GCCA Climate Ambition 2050 and has committed to the Net Zero Concrete Roadmap announced by GCCA. UltraTech is focused

on accelerating the decarbonisation of its operations. It has adopted new age tools like the Science Based Targets Initiative (SBTi) and Internal Carbon Price as well as set ambitious environmental targets through both EP100 and RE100. UltraTech is the first company in India and the second company in Asia to issue dollar-based sustainability linked bonds.

UltraTech works to actively contribute to the social and economic development of the communities in which it operates in. The Company's social initiatives focus on education, healthcare, sustainable livelihoods, community infrastructure and social causes. UltraTech reaches out to more than 1.6 million beneficiaries in over 507 villages in 16 states across India.

The Group is committed towards the safety and health of employees and the public. The motto of the Group is '**Work for Safe, Healthy, and Clean & Green Environment'**.

UltraTech Cement Limited (UTCL) has established the Unit- Roorkee Cement Works (RKCW) at Roorkee, Dist.- Haridwar (Uttarakhand), in the year 2010, having capacity of 2.0 MTPA of Cement production. The Clinker requirement of the plant is being met from Aditya Cement Works, Vikram Cement Works, Baga Cement Works, Gypsum requirement is being met from RSMM-Rajasthan & J&K, and Fly ash requirement is being met from Yamuna agar, Rajpura, Cavendish Laksar and other local sources.

"FORM – V"

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING WITH 31ST MARCH 2023

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	UltraTech Cement Limited (Unit-Roorkee Cement Works) Village- Nalheri Dehviran Post- Nalhera Anantpur, Roorkee, Dist.-Haridwar (Uttarakhand)
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Secondary SIC Category (Red category)
(III)	Production Capacity	2.0 MTPA
(IV)	Year of Establishment	2010
(V)	Date of last Environmental Statement Submitted	13.09.2022

PART – B

Water & Raw Material Consumption

1. Water Consumption m3/Day

(i) Over All Consumption - 204.5 m^3/Day

Process - Nil

Cooling - 19.6 m^3/Day

Domestic - 184.9 m^3/Day

(ii) Water Consumption per unit of production

Name of the Product	Cooling Water Consumption per unit of Product Output	
	During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
Cement	0.00669 KL/MT of Cement	0.00549 KL/MT of Cement

(iii) Cement Production

Production	Production of Cement (MT)	
	During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
Cement	1210314	1302520

2. Raw Material Consumption

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of CLINKER, CEMENT, ELECTRICITY)	
		During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
Clinker	Cement	0.6841 MT/MT Cement	0.661 MT/MT Cement
Gypsum		0.0442 MT/MT Cement	0.0493 MT/MT Cement
Fly ash (Pozzolana)		0.2716 MT/MT Cement	0.2892 MT/MT Cement

3. Raw Material Consumption: D.G. Set

Name of Raw Materials		Name of Product	Consumption of Raw material per unit of output (Lts/KWH)	
			During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
H.S. Diesel	(1250+250 KVA)	Power	0.32 Lts/KWH	0.36 Lts/KWH

Note- 1250+250 KVA DG Set is installed and is being utilized for plant lighting purpose in case of Grind failure, clearing the material in the circuit and for the packing plant operation under extreme emergency. The total Fuel consumption for this DG set During the financial year 2022-23 was 22083 LTRS.

Total D.G. Power Production (KWH)

During the previous financial year (2021-22)	During the current financial year (2022-23)
84812	61140

Power Consumption KWH/Tone of Cement

During the previous financial year (2021-22)	During the current financial year (2022-23)
30.95	26.73

PART - C

Pollutant Discharged to Environment / Unit of Output

(Parameters as specified in the consent issued)

S. No.	Pollutants	Concentration of Pollutants in discharged (Mass/ Volume) (Kg/m^3)			Percentage of variation from prescribed standard with reasons (%)
(a)	**Water (Effluent)-**As the Plant is being operated on Dry Process Technology, no liquid effluent is generated from the Cement Grinding Unit. The waste water generated from the officer toilet, Field Hostel, Township is being treated under 80 KLD sewage treatment plant which is installed at township area. The treated water is being reutilized for gardening the trees, shrubs, Hedges and green belt development in the entire campus and dust suppression on the transportation road.				
(i)	**Domestic (Treated water of STP Plant)**				
	pH	7.46			Within the permissible limits.
	BOD	0.012			-60%
	COD	0.048			-81%
	SS	0.0065			-94%
(b)	**Ambient Air**				
	(i) Ambient monitoring	**Near Admin block**	**Near Camp house**	**Near Packing plant**	
	PM 10	59*10^-6	54*10^-6	59*10^-6	-43%
	PM 2.5	35*10^-6	32*10^-6	37*10^-6	-43%
	SO_2	8*10^-6	9*10^-6	8*10^-6	-89%

	NO_X	21*10^-6	22*10^-6	19*10^-6	-74%
	(ii) Stack emission				
	Cement Mill #1-Bag House	17*10^-6			-45%

Note- Ambient Air, Stack Monitoring, and Noise Monitoring Results are enclosed as **Annexure- 1,2,3.**

PART – D

(As specified under The Hazardous, waste (Management, Handling and Transboundary Movement rules) 2008. as Amended to date.

Hazardous Waste		**Total Quantity (MT)**	
		During the Previous Financial Year (2021-22)	**During the Current Financial Year (2022-23)**
(a)	From Process	2.55 (MT) (Used Oil)	0.655 (MT) (Used Oil)
(b)	From Pollution Control Facilities.	NA	Nil

Remarks:- Sold to authorized vendor M/S Shiv Shakti oil & lubricants, F-557, RIICO Industrial area chopanki, Post: Tapukara: Tehsil : Tijara, Dist.- Alwar, Rajasthan-301019(Inia).

PART – E

Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
(a)	From Process	No Solid waste generated from the cement manufacturing process.	No Solid waste generated from the cement manufacturing process.
(b)	From Pollution Control facilities	Solid waste generated from the cement manufacturing process recycled back into the process.	Solid waste generated from the cement manufacturing process recycled back into the process.
	(i) Qty. recycled or reused Within the unit.	100% is recycled or reused with in the unit.	100% will be recycled or reused with in the unit.
	(ii) Sold	Nil	Nil
	(iii) Disposed	Nil	Nil

Note- There is few quantity of hazardous waste generated by some activity of process, which come under the category 5.1 of Hazardous Waste Management and Handling rules, 2008 as amended in 2016. The authorization of Hazardous and Other Wastes (Management and Transboundary movement) Rules, 2016. Has been granted from the UKPCB, Dehradun. However there is no hazardous Waste generated from the pollution control equipment/measures. The generated hazardous waste

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

Hazardous waste: All used Oil generated from the different sections of plant is being collected in empty drums and barrels and then sent to store department for proper handling and storage. The store Department has arranged storage of all collected hazardous waste at specified location as per Hazardous Waste (Management, Handling & Trans boundary Movement) Rule, 2016 The hazardous waste i.e. Used oil and grease is sold out to authorized vendor.

Solid Waste: Solid waste generated from process operations is especially through spillage or emissions of the various raw materials or the finished product i.e. Clinker, Gypsum, Fly - ash & cement. This spillage material is being recycled into the process. Hence, there is no solid waste generated during the process of cement manufacturing. For arresting fugitive/dust emission from various material transfer points, high efficiency pulse jet bag filters have been installed. The collected dust in the bag filter is recycled back to the process.

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

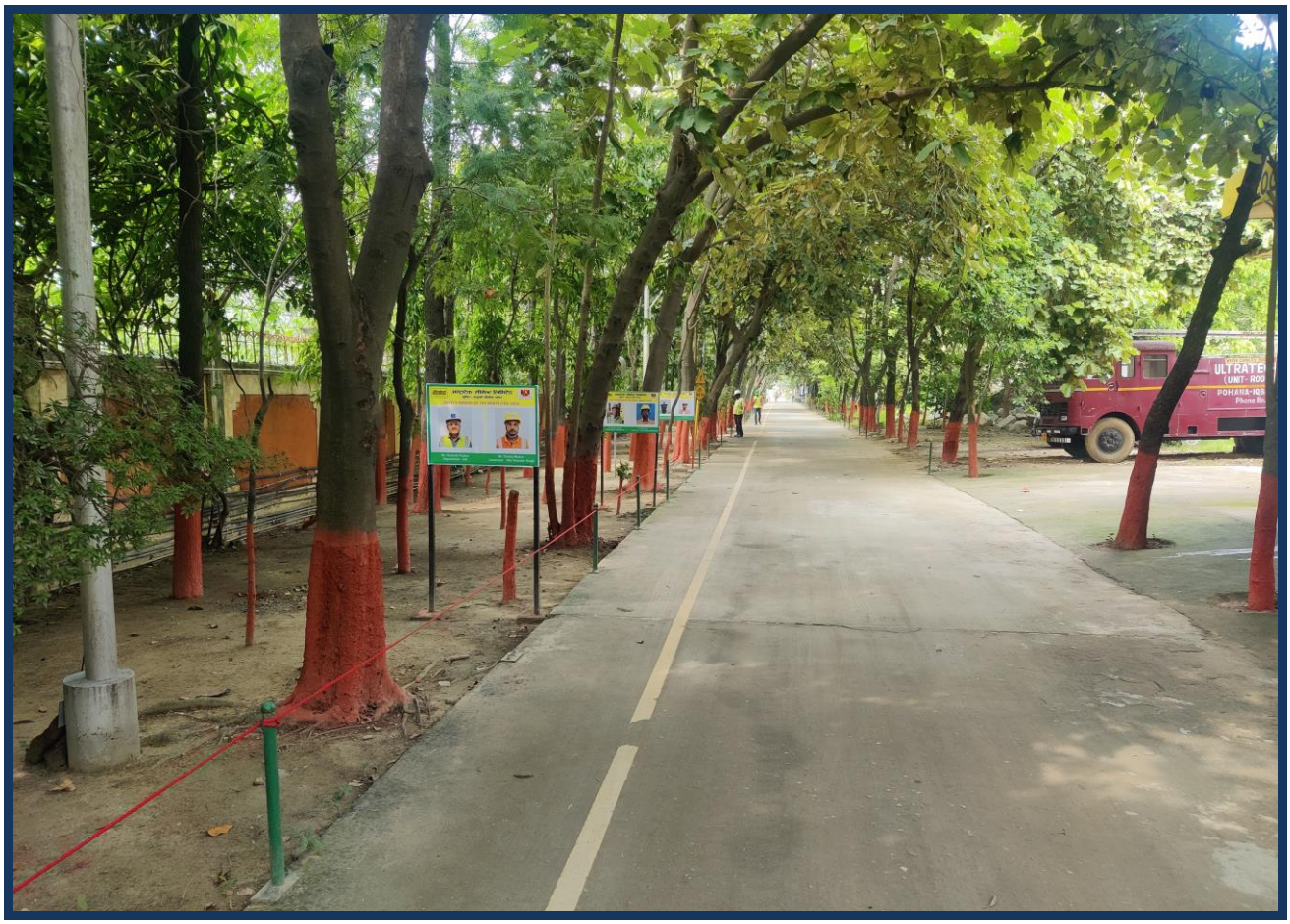
1. Extensive plantation in and around the plant.

The plantation drive was carried out under the supervision of senior executive of company with active involvement of Employees of factory. Suitable plant species of different plants have been selected for setting up of green belt development for biodiversity conservation, flower producing trees and broad canopy trees. We have already carried out 36% tree plantation of plant area and further Tree Plantation is still in progress.

Particulars	Plant species	Plantation during the year 2021-22	Plantation during the year 2022-23
Township	Ficus Benjamina, Ashoka,	100	158

area	Kaner, Cycus, Alistonia, Washingtonia Palm, Bottle palm, Amrud, Aam, Nashpati, Litchi, Cheeku, Morphanki, Neem		
Plant area	Ashok, AmalTash,Bogon Velia, Bel, Ficus, Cycus, Silver Oak, Kanak Champa, Cassia Gulacca, Alistonia, Kaner, Peepal, Dambia, Phonix palm, Morpankhi, Neem	179	100
Total		**279**	**258**

GREEN BELT AT RKCW PLANT & TOWNSHIP



Remarks: - Our survival of plantation is about 85%.

2. Control of Fugitive dust

Following measures have been taken to control of fugitive dust at **UltraTech Cement Limited, Unit: - Roorkee Cement Works (RKCW) Plant**: -

a. All the raw material is being stored in the covered storage yards.

b. The conveyor belts are fully covered.
c. Cement, Clinker and Fly ash being stored in the silos.
d. Regular water spraying on reads.
e. Entire road is concreted with in the plant premises.

3. Scheduled maintenance and monitoring of Pollution Control Devices.

All the Pollution Control Devices are being maintained as per scheduled maintenance by dedicated environmental management team, which comprises of mechanical, electrical, and environment engineers and monitoring of all these are being carried out regularly.

The lists of major Pollution Control Devices installed are as under: -

Sr. No.	Pollution Control Devices attached with	Pollution Control Devices installed	GAS VOLUME (m3/hrs)
	Cement Mill		
1	Cement Mill #1	Bag House	82,000
2	Cement Mill #1 Sepax	Bag House	80,000
	Packing Plant		
1	Packer# 1	Bag Filter	40,000
2	Packer# 2	Bag Filter	40,000

Bag filters installed at various transfer points:

	SECTIONS	Gas Volume (m3/hrs)
A	**Cement Mill Section**	
1	Cement Mill #1 Circuit	15,500
	SECTIONS	**Gas Volume (m3/hrs)**
2	Clinker, Gypsum and Hopper, Fly ash hopper	8000
3		16000
4		21300
5	Material Transport System	21000
6		21000
7		21000
8		12000
9		12000
10		6000
11		15000
12		8000
13		12000
14	Fly-ash Unloading System, Silo & Fly-ash Transport	30000
15		30000
16		9000
	SECTIONS	**GAS VOLUME (m3/hrs)**

B	Packing Plant Section	
17	Cement Silos	3000
18		3000
19		3000
20		7500
21		7500
22		7500
23		12250
24		8000

Photographs of the Pollution Control Equipment-

4. All hose, pipelines, storage tanks area leak proof to avoid water or air leakage, which conserve natural resources and power consumption.

5. Unit frequently measure the ground water level, noise level, ambient air quality and stack emission level.

6. Unit Consume 327574 MT of Fly ash and 49154 MT of Pond ash in FY 2022-23, which eliminate adverse effect on environment and reduce the natural source for production**.**

7. The advantage of dry process is also in fuel economy. Equipment is like Bag house control for stack emissions from the plant and Bag filters installed at various material transfer points to clean the process and arrest emission. The particulate matter collected in APCE is recycled in process and neutralizing the cost of operation of pollution control equipment is recycled in process and neutralizing the cost of operation of pollution control equipment's and hence cost impact on the production cost.

8. Total 04 no of Rainwater harvesting and 02 no of water pond structure have been prepared to augment ground water during rainy season and increase ground water level.

PART – H

ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

1. **Waste Management:**

The biodegradable and non-biodegradable waste of plant and colony is being segregated in different color of dustbins. Non-biodegradable waste is being collected by rag pickers and sold to recyclers, where-as biodegradable waste is decomposed through natural composting and utilized as manure for green belt development.

2. **Waste water Utilization**

STP wastewater is collected in neutralization pit and after treatment of wastewater; it is being used for horticulture purpose in plant and township areas. The sludge of STP is used as manure in green belt development.

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. Environment Cell is equipped with Air, water, noise etc. monitoring instruments, dedicated well qualified, and experiences staff. The detail of the Environment Cell is as under:

Environment Cell Manpower Qualification & other details

S. No.	Name	Position	Qualification	Experience
1	Mr. Dinesh Khatri	Grinding Unit Head	B. Tech	34 Years
2	Mr. Devesh Deopa	DH- Technical	B. Tech	15 Years
3	Mr. Tej kumar Pandey	PF- Environment	M.Sc.	04 Years
4	Mr. Rahul Kumar	Env. Supervisor	B.A	03 Years

2. 02 Nos of CAAQMS (Continuous Ambient Air Quality Monitoring System), one in up wind direction and second in down wind direction installed and data transferring continuously.
3. 01 Nos of CEMS (Continuous Emission Monitoring System) installed in main bag house stack and properly connected to the CPCB portal.

4. Stack emission and ambient air monitoring is being done regularly.
5. Unit has installed 80 KLD STP and treated water is being used for horticulture purpose.
6. No effluent is generated from the process as cement grinding is based on dry process technology.
7. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
8. Unit is carrying out environmental awareness drivers on regular basis.
9. Plantation activities are conducted by plant management on regular basis.

Details of Environment Laboratory Operation

The Environment Cell is fully equipped with highly competent and skilled persons guided by senior most executives' along-with the latest and advanced monitoring and analytical equipment. The Environment Cell comprises of one engineer and two supporting staff for day-to-day monitoring and analysis of the environmental activities.

An Environment Cell is equipped with **Air testing** equipment like On-Line Ambient Air Quality Monitoring Station For measuring the ambient air quality (PM10 ,PM 2.5) And Whether Monitoring ,Reparable Dust Sampler for measuring the ambient air quality (PM10 , SO2, NO_X) at 03 locations of RKCW plant, and nearby villages. Stack monitoring equipment supplied by Vayubodhan, New Delhi is being used for the monitoring of all the stacks. All the air samples (Ambient and Stacks) are being collected and analysed in our dedicated Environmental Lab.

We have a sophisticated Environmental **Testing Lab** in **UltraTech Cement Limited, Unit- Roorkee Cement Works** (RKCW), Roorkee (Uttarakhand).

The parameters being tested are as follows:-

1. pH
2. Colour
3. Suspended Solids, Dissolved
4. Temperature
5. Dissolved Oxygen
6. BOD
7. COD
8. Chloride test
9. Oil & Grease Test

Monitoring Equipment's details

S. N.	Name of Equipments	No. of Equipments
A.	**Ambient Air Quality Monitoring**	
1.	Respirable Dust Sampler (RDS)	03
2.	Gaseous Sampling attachment	03
3.	Orsat apparatus	03
B.	**Stack Monitoring**	
2.	Stack Monitoring Kit	01
C.	**Workplace Monitoring**	
3.	Sound Level Meter	01
C.	**Water Quality Monitoring**	
4.	UV- Spectrophotometer-Model- Genesys 10-S	01
5.	BOD Incubator	01
6.	Hot Air Oven	01
7.	COD Digester	01
8.	Digital pH Meter	01
D.	**Weather Monitoring**	
9.	Wind Monitor	01

EXPENDITURE ON VARIOUS ENVIRONMENTAL ACTIVITIES

S. No.	Environmental activities	Cost (Rs. Lacs)	
		Proposed Recurring Budget (2022-23)	Actual Recurring expanses Apr' 2022 to March' 2023
1	**Operation and maintenance cost of Pollution Control Equipment**		
A	**Cement Mill**		
i.	Cost on Schedule maintenance	10.0	5.68
ii.	Cost on Electrical consumption and maintenance	40.00	33.30
B.	**Packing Plant**		
i.	Cost on Schedule maintenance	10.0	1.91
ii.	Cost on Electrical consumption and maintenance	30.0	19.82
C.	**Raw Material**		
i.	Cost on Schedule maintenance	10.0	1.69
ii.	Cost on Electrical consumption and maintenance	60.0	68.20
	Secondary Fugitive Emission Control Equipment/Utility		
i	Water sprinklers System /Sweeping Machine /water Tanker	10.0	9.7
3	**Horticulture / Green Belt**		
i	Expenditure	10.0	5.50
4	**Environment Equipment's, RPM/S&S**		
i	Calibration /Maintenance / Filter Paper/ STP / Water Treatment	6.00	8.20
ii	Monitoring & Audit charges	10.00	9.67
5	**Sewage Treatment Plant Electricity Consumption**		
i	STP Operation Electricity Consumption Expenses	0.50	0.21
6	**Occupational Health**		
i	First Aid/ Medicine/ Bio waste disposal	10.00	9.50
	TOTAL COST (Rs. Lacs)	**206.5**	**173.38**

MEDICAL FACILITIES

ROORKEE CEMENT GRINDING UNIT HOSPITAL

UltraTech Cement Limited Unit:- Roorkee Cement Works (RKCW) has a 4 Beded dispensary with one qualified doctor along with well-trained staff are employed in the Hospital and rendering the medical services to the employees of the factory, as well as the population in and around the local villages. Besides free services to employees and their dependent, free diagnostic, along with free medicines are provided to inhabitants of surrounding villages.

Services provided include OPD, Indoors and Emergency services round the clock to all patients as well as ambulance service is provided to all employees of the Company and the local villagers.

It has been noted that the patients attending the Hospital are mainly suffering from normal diseases like Diarrhoea, malaria, viral fever, body ache and other medical injuries. The Hospital caters to around 500 patients per month.

FRONT VIEW OF AMBULANCE

OCCUPATIONAL HEALTH SURVEILLANCE

UltraTech Cement Limited, Unit: - Roorkee Cement Works (RKCW) has initiated various steps towards Occupational Health Surveillance at different level, details of which are as under:-

1. Preventive Measure

a) Protection of Environment: - Dust and noise are well-known health hazards in Cement Industry. The Company has installed Dust Control Equipments, like Bag Houses, Dust Collector, and Bag Filters etc. at all emission points. All these equipment conform to the emission levels well within the standards laid down by the Central Pollution Control Boards and Uttarakhand Pollution Control Board. Ambient and fugitive air quality monitoring is regularly being carried out by the Company, as well as by Approved agency from MoEF, and the results has been found to be within the prescribed limits. Noise levels are also monitored and care is taken to keep the same within the prescribed norms.

b) Use of Personal Protective Equipment: - All employees are provided with Personal Protective Equipment (PPEs), as per the requirement, such as workers working in dust prone areas are provided with Dust Masks and in noise pollution areas with Ear Plugs / Ear Muffs. In addition to this, other safety equipment like Fire Aprons, Fire Safety Boots, Gloves, Welding Goggles, and Safety Helmets etc. are also being provided as per the requirement.

For UltraTech Cement Limited,
(Unit: - Roorkee Cement Works)

Dinesh Khatri
(Sr. VP & GUH)

Annexure-01

UltraTech Cement Limited (Unit: Roorkee Cement Works)												
AMBIENT AIR QUALITY												
Year 2022-23												
Location Month	**Near Admin Block**				**Near Camp Area**				**Near Packing Plant**			
	PM_{10} ($\mu g/M^3$)	$PM_{2.5}$ ($\mu g/M^3$)	SO_2 ($\mu g/M^3$)	NO_x ($\mu g/M^3$)	PM_{10} ($\mu g/M^3$)	$PM_{2.5}$ ($\mu g/M^3$)	SO_2 ($\mu g/M^3$)	NO_x ($\mu g/M^3$)	PM_{10} ($\mu g/M^3$)	$PM_{2.5}$ ($\mu g/M^3$)	SO_2 ($\mu g/M^3$)	NO_x ($\mu g/M^3$)
Apr-22	60	35	8	21	55	33	10	21	61	38	9	20
May-22	59	34	8	21	53	33	9	20	59	37	8	19
Jun-22	58	34	9	21	53	32	9	21	59	36	9	19
Jul-22	54	31	8	20	48	29	10	19	55	35	8	18
Aug-22	64	36	8	21`	50	30	8	19	69	40	10	20
Sep-22	55	32	8	20	51	31	9	20	57	35	8	18
Oct-22	60	34	8	21	52	32	8	20	58	36	9	19
Nov-22	62	35	9	22	55	33	10	21	60	37	9	20
Dec-22	67	38	9	23	60	36	10	23	64	40	9	21
Jan-23	71	40	11	26	63	38	12	25	66	43	10	22
Feb-23	66	38	10	23	60	35	11	23	63	39	10	20
Mar-23	59	34	8	21	54	32	9	21	58	36	8	19
Average	**61**	**35**	**9**	**22**	**55**	**33**	**10**	**21**	**61**	**38**	**9**	**20**
Min	**54**	**31**	**8**	**20**	**48**	**29**	**8**	**19**	**55**	**35**	**8**	**18**
Max	**71**	**40**	**11**	**26**	**63**	**38**	**12**	**25**	**69**	**43**	**10**	**22**

Annexure-02

UltraTech Cement Limited (Unit: Roorkee Cement Works)			
Annual Stack Monitoring Result			
2022-23			
S. No.	**Month**	**Norms for SPM Emission from Stack**	**Location**
			Cement Mill Stack
1	Apr-22	30 mg/Nm^3	16.3
2	May-22		12.4
3	Jun-22		12.75
4	Jul-22		14.8
5	Aug-22		11.2
6	Sep-22		13.95
7	Oct-22		15.75
8	Nov-22		13.96
9	Dec-22		15.33
10	Jan-23		10.84
11	Feb-23		12.34
12	Mar-23		16.59
Average			**13.85**
Min			**10.84**
Max			**16.59**

Annexure-03

UltraTech Cement Limited (Unit: Roorkee Cement Works)							
Ambient Noise Level Monitoring Report							
YEAR 2022-23							
S. No.	Location	Admin Block		Store Yard		Annpurna Building	
	Month	Day time	Night time	Day time	Night time	Day time	Night time
1	Apr-22	53.3	45.8	67.4	60	54.3	43.1
2	May-22	57.3	49.6	64	62.5	53.5	42.2
3	Jun-22	62.6	53.9	68.4	66.5	53.2	41.5
4	Jul-22	58.5	50.7	65.3	63.8	54	43.3
5	Aug-22	59.7	51.8	66.7	65.2	53.7	43
6	Sep-22	62.5	54.1	69.8	68.2	53.1	43.7
7	Oct-22	61.5	53.3	68.7	67.1	54.1	43.8
8	Nov-22	61.9	53.7	68.9	67.4	54.4	44.1
9	Dec-22	65.2	56.4	72.3	70.8	51.9	40.9
10	Jan-23	66.9	57.5	74.2	69.1	52.8	42.7
11	Feb-23	65.7	56.8	71.9	68.8	53.2	41.5
12	Mar-23	64.8	56.1	72.1	69.8	58.9	48.2
Average		61.66	53.31	69.14	66.60	53.93	43.17
Min		53.3	45.8	64	60	51.9	40.9
Max		66.9	57.5	74.2	70.8	58.9	48.2