

The Director
Ministry of Environment, Forests & Climate Change
Paryavaran Bhavan,
CGO Complex, Lodhi Road,
New Delhi – 110 003

HeidelbergCement India Limited
CIN: L26942HR1958FLC042301
Village and P. O. Narsingarh
District Damoh,
Madhya Pradesh 470675
Phone +91-7601-241301, 02 & 05
Fax +91-7601-241235
Website: www.mycemco.com

May 20, 2021

Sub: Six monthly Compliance report of Environmental Clearance for Expansion of Clinker manufacturing plant and Captive Mines of Narsingarh Limestone Mine and Patharia Limestone Mines, District Damoh by M/s Diamond Cements (Prop: HeidelbergCement India Limited), Narsingarh, Damoh, M.P. for the period of Oct 2020 to Mar 2021.

Ref.: Ministry of Environment & Forests Environmental Clearance letter No. J-11011/1117/2008-IA.II(I) dt. 24.06.2009 and Corrigendum dated 28.09.2011

Sir,

With reference to the above referred letters, please find herewith compliance report of conditions stipulated in the Environmental Clearance for Expansion of Clinker manufacturing plant Narsingarh and Captive Lime stone Mines of Patharia and Narsingarh Limestone Mine, District Damoh by M/s Diamond Cements (Prop. HeidelbergCement India Ltd.) dully supported with relevant annexures in hard & soft by email. This compliance report is submitted for the period from **Oct 2020 to Mar 2021**.

This is submitted for your kind perusals.

Thanking you,

Yours faithfully

For Diamond Cements

(Prop. HeidelbergCement India Ltd.)



Sanjeev Kumar Gupta

Head Works- Damoh

Sr. Vice President

Encl: As above

CC: **The Jt. Director (S)**, Regional Office, Western Region, Ministry of Environment, Forests & Climate Change, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravishankar Nagar, Bhopal – 462016 (M.P.)

CC: **The Zonal Officer (Central)**, Central Pollution Control Board, E-5, Link Rd Number 3, Ekant Park, Arera Colony, Bhopal, Madhya Pradesh 462016

CC: **Member Secretary**, Madhya Pradesh Pollution Control Board, Paryawaran Parisar, E-5, Arera Colony, Bhopal (M.P.)

CC: **The Regional Officer**, MP Pollution Control Board, Deen Dayal Nagar, Housing Board Colony, Sagar (MP)

CC: **Sr. G.M. (Mines)** - For kind information and record please

CC: **Office copy**

Registered Office:
2nd Floor, Plot No. 68, Sector-44,
Gurugram, Haryana 122002



COMPLIANCE REPORT OF ENVIRONMENT CLEARANCE

(For the period of Oct 2020 to Mar 2021)

(Ref. No. of EC: J-11011/1117/2008-IA-II(I)dated 24.06.2009)

of

**EXPANSION OF CLINKER MANUFACTURING PLANT
(FROM 1.2 MTPA TO 3.1 MTPA) AND CAPTIVE MINES OF NARSINGGARH
LIMESTONE MINE AND PATHARIA LIMESTONE MINE (FROM 0.75 MTPA
TO 4.5 MTPA)**

of

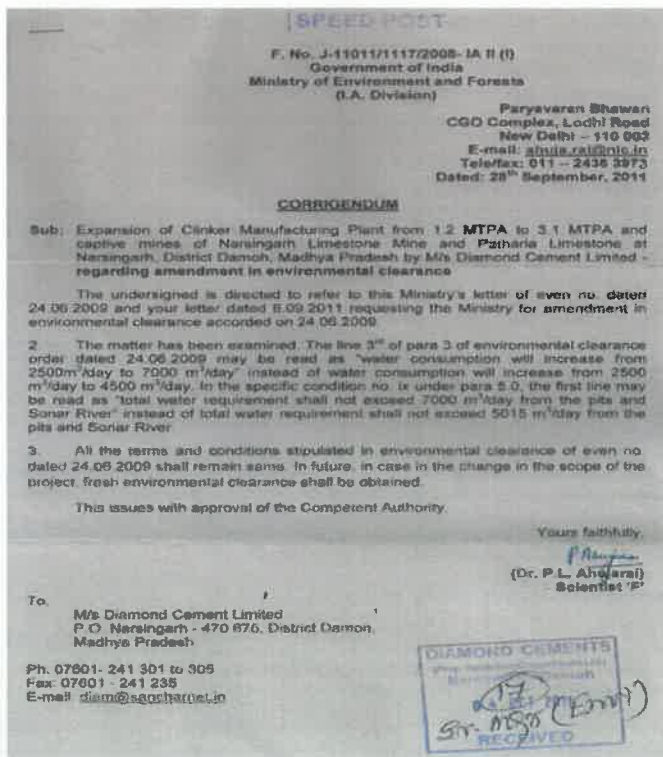
**M/s. Diamond Cements
(Prop. Heidelberg Cement India Ltd.)
Narsinggarh, Damoh (M.P.)**

Compliance status

S.N.	Point of E.C.	Compliance Status/ Action Plan
2	The Ministry of Environment and Forests has examined the application. It is noted that M/s Diamond Cement Ltd. have proposed for expansion of Clinker plant from 1.2 MTPA to 3.1 MTPA and Captive Mines of Narsinggarh Limestone Mine (1302.70 ha-1.49 MTPA; no change in capacity and ML area) and Patharia Limestone 0.75 to 4.50 MTPA-1247.267 ha (No change in ML area, only increase in production rate is proposed) at Narsinggarh, District Damoh, Madhya Pradesh. For expansion of clinkerisation a new line for clinker manufacturing capacity of 1.9 MTPA will be installed. The proposed expansion will be carried out in the existing plant premises and no change of land use is envisaged. River Sonar is passing through mine lease area in Narsinggarh mine lease area and a seasonal stream Sajali Nadi flows 750 m North of Patharia Mine lease area. Mining plan for the Narsinggarh has been approved by IBM vide letter no. 314(3)/2006-MCCM(C)/MP-8 Nagpur dated 28 th November, 2006 and for Patharia Mine vide letter no. 314(3)/2007-MCCM(C)/S-37 dated 25 th April, 2008. Total cost of the project is Rs. 832.00 Crores	Production is limited within the consented figures only, which will also be maintained in future.

3	<p>Bag house, ESP, bag filters and stacks of suitable height will be installed to control emissions within 50 mg/Nm³ for new line. Water spraying will be done on the roads for fugitive dust control within the premises. Water consumption for the plant will increase from 2500 m³/day to 4500 m³/day. Water requirement will be met from the existing water sources i.e. old mining pits and nearby river water. The water requirement for mine operation will be 300 m³/day and 215 m³/day respectively for Patharia and Narsingarh limestone mines. Wet drilling, water sprinkling on haul roads and maintenance of the vehicles will be done to control dust pollution in the mining area. Grading of haul roads and service roads will be done. All the dust collected in air pollution control equipments in the cement plant will be recycled/reused in the process. The benches will be 10 M high, 15 wide (7 M wide at finishing stage) with bench slope of 80% will be opencast mechanized with shovel, dumper combination. Controlled blasting, safe charge per delay to control ground vibrations and use of cap sensitive explosives will be practiced. Mine working will not intersect the ground water table</p>	<p>Adequate pollution control equipment have been installed to keep the emissions within 30 mg/ Nm³ According to the EIA report submitted to MoEF the daily water requirement shall increase to 7000 m³ per day from 4000 m³ per day. The figures mentioned in the EC letter are different and a representation for amendment of water consumption has been submitted to the MoEF. The amendment letter is granted on 28.09.2011. The conditions pertaining to mining activities shall be complied with.</p>
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3 Name of presentation | Author | dd.mm.yyyy



Correction letter received from MoEF for Water quantity

4 Name of presentation | Author | dd.mm.yyyy

S.N.	Condition	Status / Compliance
A.	Specific Conditions :	
1.	The company shall conduct long term modeling for hydrogeological studies of the mining areas and report shall be submitted to the Ministry's regional Office at Bhopal within three months.	Hydrogeological study of Narsingarh Mines & Patharia Mines has been carried out and the study report has been communicated to MoEFCC, along with biannual report bearing No. DC:ENV:EC/JUNE/2010/3482 dated on 19.06.2010.
2.	The company shall produce the copy of certificate under section 6(1)(b) of the Mines and Minerals (Development & Regulation) Act, 1957 (67 of 1957) for the total mining area beyond 1000 ha before commencement of the expansion activity at site.	The copy of certificate is already submitted vide letter dated 19.06.2010. Copy of certificate under section 6(1)(b) of the Mines and Minerals (Development & Regulation) Act, 1957 (67 of 1957) for the total mining area beyond 1000 ha. is enclosed as Annexure I.

Copy of certificate under section 6 (i)b of MMDR act

BY SPEED POST

Government of India
Ministry of Mines

No. 4/130/2007 M IV
New Delhi, the 02. MAR. 2010

To
The Secretary to the Govt. of Madhya Pradesh,
Mineral Resources Department,
"Mentrelaya", Bhopal,
Madhya Pradesh.

Subj: Relaxation of Section 6(1)(b) of the MMDR Act, 1957 for renewal of mining lease for lime stone over 1302.70 hect. in Narsingarh and 13 other villages of distt. Damoh, Madhya Pradesh in favour of M/s. Diamond Cement for a period of twenty (20) years.

Sir,

I am directed to refer to the correspondence relating with your letter No. P-3-60/08/12/1 dated 11.10.2007 on the subject mentioned above and to convey the relaxation of the Central Government under Section 6 (1) (b) of the Mines and Minerals (Development and Regulation) Act, 1957 by grant of Mining Lease for limestone over an area of 1302.70 hect. in Narsingarh and 13 other villages of distt. Damoh, Madhya Pradesh in favour of M/s. Diamond Cement for a period of twenty (20) years.

2. Before allowing grant of ML, the State Govt. may kindly ensure the compliance of the amended provisions of the Act and Rules, and other applicable Acts and Rules including Forest (Conservation) Act, 1980 and Environmental Notification dated 27.1.84 as issued and amended by MOEF.

3. A copy of the order passed by the State Govt. in the matter may kindly be furnished to this Ministry for record.

Yours faithfully,
(C.K. Rawat)
Under Secretary to the Govt. of India

Regd./copy to:

(i) The Controller General, Indian Bureau of Mines, Indira Bhawan, Nagpur-440001.
(ii) The CMD, Mineral Exploration Corporation Ltd., High Land Drive Road, Barmhary Hills, Nagpur-440006.
(iii) PG to Minister of Mines.
(iv) M/s. Diamond Cement, Village Narsingarh, Distt. Damoh, Madhya Pradesh.
(v) Guard File.

(C.K. Rawat)
Under Secretary to the Govt. of India
C. K. RAWAT
Under Secretary
Ministry of Mines
New Delhi

Annexure I

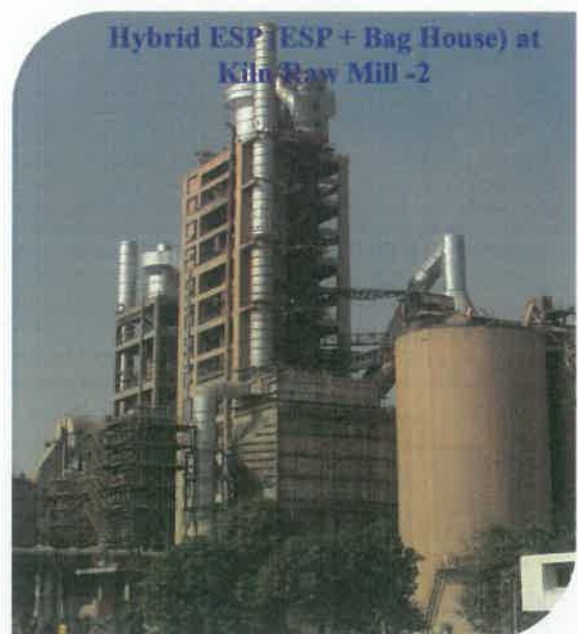
Compliance status

S.N.	Condition	Status / Compliance
3.	<p>The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Madhya Pradesh Pollution Control Board (MPPCB). At no time, particulate emissions from the cement plant including kiln, coal mill, cement mill and cooler shall not exceed 50 mg/Nm³ Continuous on-line monitors for particulate emissions shall be installed. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.</p>	<p>Air pollution control equipment at all the dust generation points have already been installed to keep the emission levels below prescribed norms.</p> <p>Continuous ambient air quality monitoring station (CAAQMS)/ Continuous emission monitoring system for stacks (CEMS) have been installed. The online data is being directly uploading the website of CPCB & MPPCB.</p> <p>Interlocking facility has been provided in all APCEs.</p> <p>Photographs of the APCEs are given as Annexure II and stack emissions monitoring results are given as Annexure III.</p>

Photographs of APCD

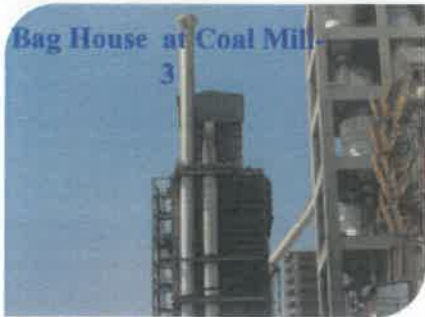
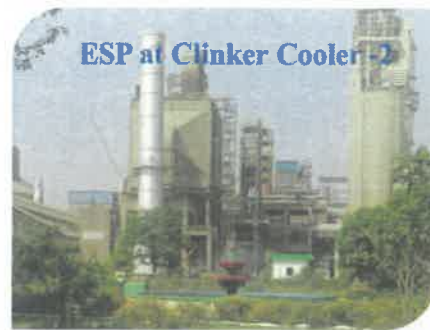


Annexure II Contd...



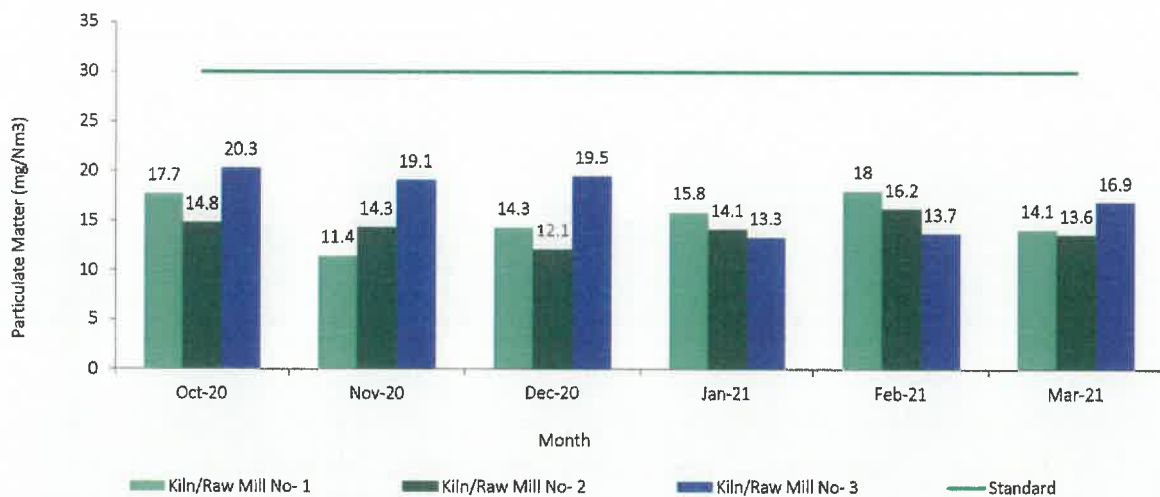
Photographs of APCD

Annexure II Contd...



Stack Emissions Results (Mg/Nm³)

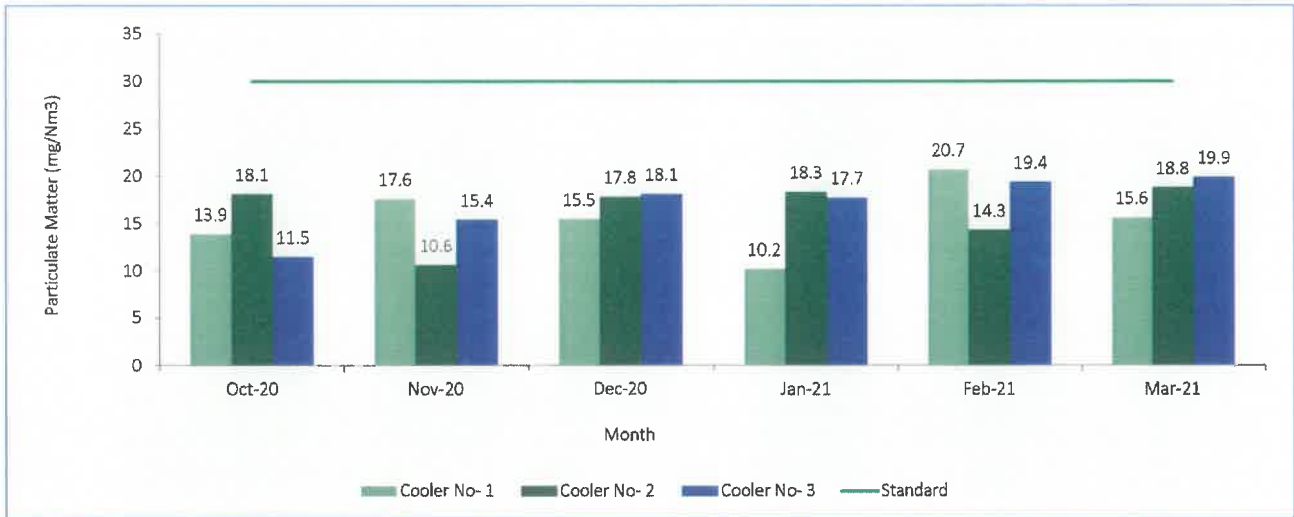
Annexure III



0 indicate plant was under shut Down

Stack Emissions Results (Mg/Nm³)

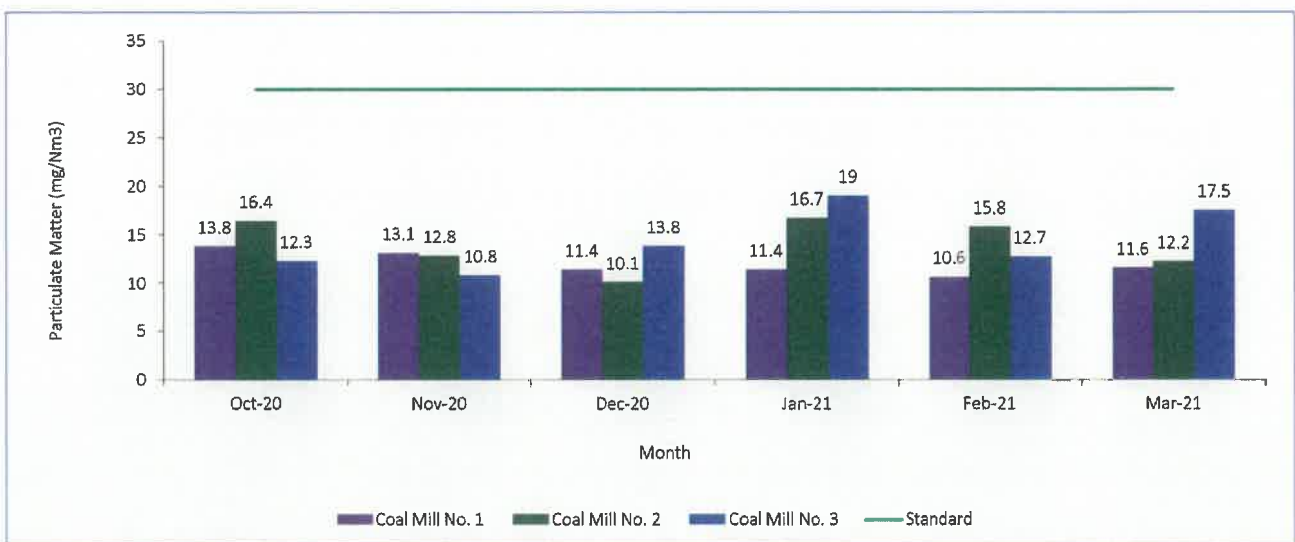
Annexure III



0 indicate plant was under shut Down

Stack Emissions Results (Mg/Nm³)

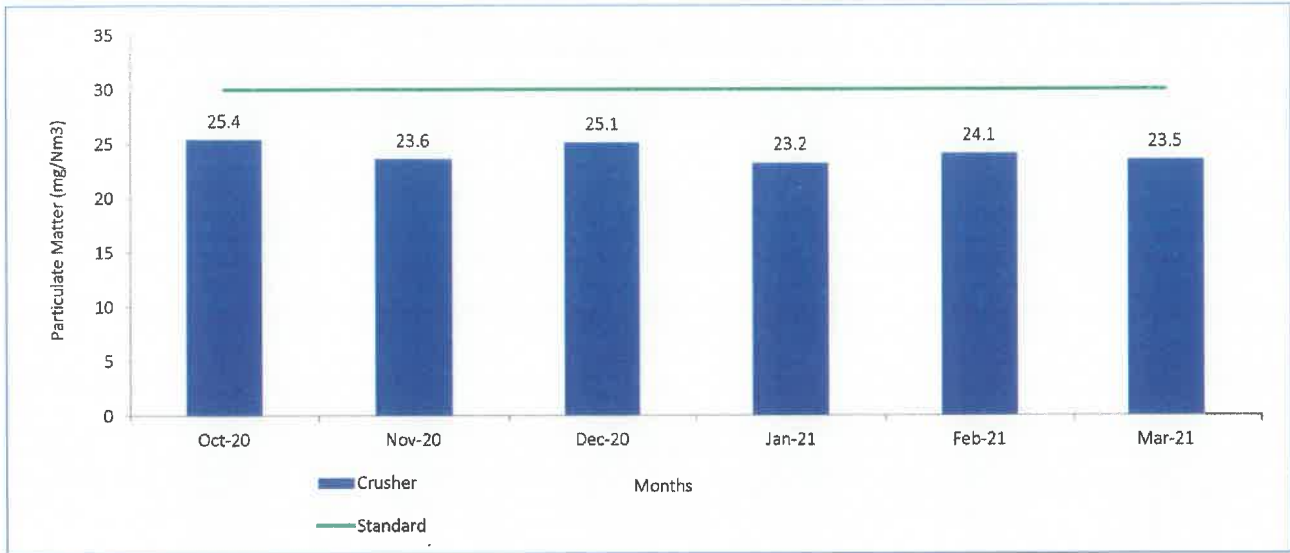
Annexure III



0 indicate plant was under shut Down

Stack Emissions Results (Mg/Nm³)

Annexure III



0 indicate plant was under shut Down

Compliance status

S.N.	Condition	Status / Compliance
4.	<p>Secondary fugitive emissions shall be controlled within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at material transfer points. Atomized water spray system with reclaimers shall be installed in silo used for the storage of ash. Storage of other raw materials shall be in closed roof sheds. Covered conveyor belts shall be used to reduce fugitive emissions. Concreting of all the roads, water sprinkling system at limestone and coal handling area shall be ensured to reduce fugitive emissions.</p>	<p>Secondary fugitive emissions is being controlled within the prescribed limits and regularly monitored. Results are enclosed as Annexure IV.</p> <p>Guidelines / Code of Practice issued by the CPCB in this regard is being followed.</p> <p>All roads are concreted inside the plant, Dust Suppression, water sprinkler have already been installed in coal yard and hopper of limestone crusher in existing plant. All necessary pollution control system already in place in the plant and Mines. Please Refer Annexure V.</p> <p>The raw material storage yard (except Limestone) are covered and the conveyor belts are also covered. Photographs are enclosed as Annexure VI.</p>

Secondary Fugitive Emissions Results ($\mu\text{g}/\text{m}^3$)

Annexure III

CLINKERISATION UNIT

Quarterly Report	In between Lime Stone Stock pile & Coal yard	Laterite Yard	Near Crusher	Near Raw Mill Silo	Clinker Stock Pile	Lime stone Stock Area	Coal Stock Area Line-3
Oct to Dec 2020	987	1121	985	951	895	1082	1011
Jan to Mar 2021	1224	1124	1054	955	1001	1100	1068

* No Monitoring due to rain fall.

Secondary Fugitive Emissions Results ($\mu\text{g}/\text{m}^3$)

Annexure III

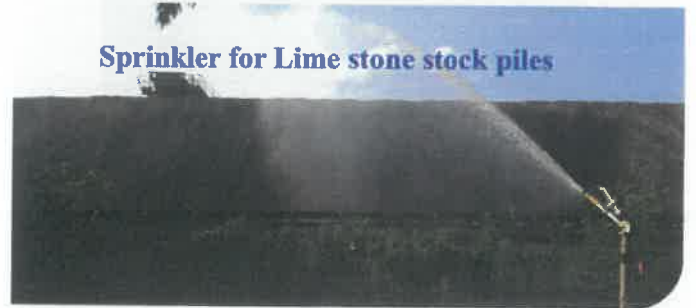
LIME STONE MINES PATHARIA

Quarterly Report	NEAR LOADING POINT BELT-CONVEYOR	HAULAGE ROAD	NEAR CRUSHER	NEAR LIME STONE STOCK AREA	NEAR DRILLING AREA
Oct to Dec 2020	1026	853	1121	865	825
Jan to Mar 2021	1250	962	1244	863	825

* No Monitoring due to rain fall.

Control measures for secondary fugitive emissions

Annexure V



Control measures for secondary fugitive emissions

Annexure VI



Control measures for secondary fugitive emissions

Annexure VI



Concreted road



Road sweeping Machine



Plantation by Head Works-Damoh



Mass Plantation Neem Tree by HCIL Employees during 15th Aug 2020

Compliance status

S.N.	Condition	Status / Compliance
5.	Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality shall be carried out regularly in consultation with MPPCB and data for air emissions shall be submitted to the CPCB and MPPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated from time to time.	Monitoring of ambient air quality is being carried out on regular basis and the data is being submitted regularly to the respective authorities. The Environmental Cell established in the plant ensures that the air quality and noise levels are maintained within the limits, stipulated under EPA/ State authorities. Annexure VII is depicting the photographs of AAQMS stations and Environment Laboratory as well as results of AAQMS and Ambient Noise Level.

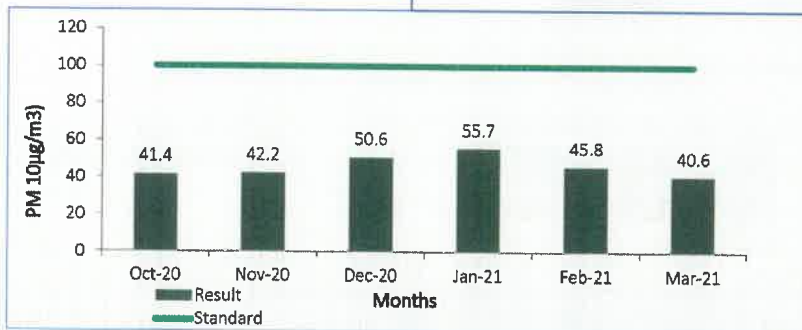
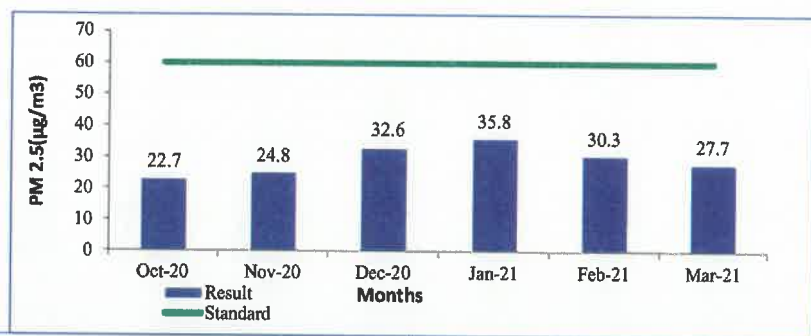
AAQM Station Monitoring Facility And Environment Lab

Annexure VII



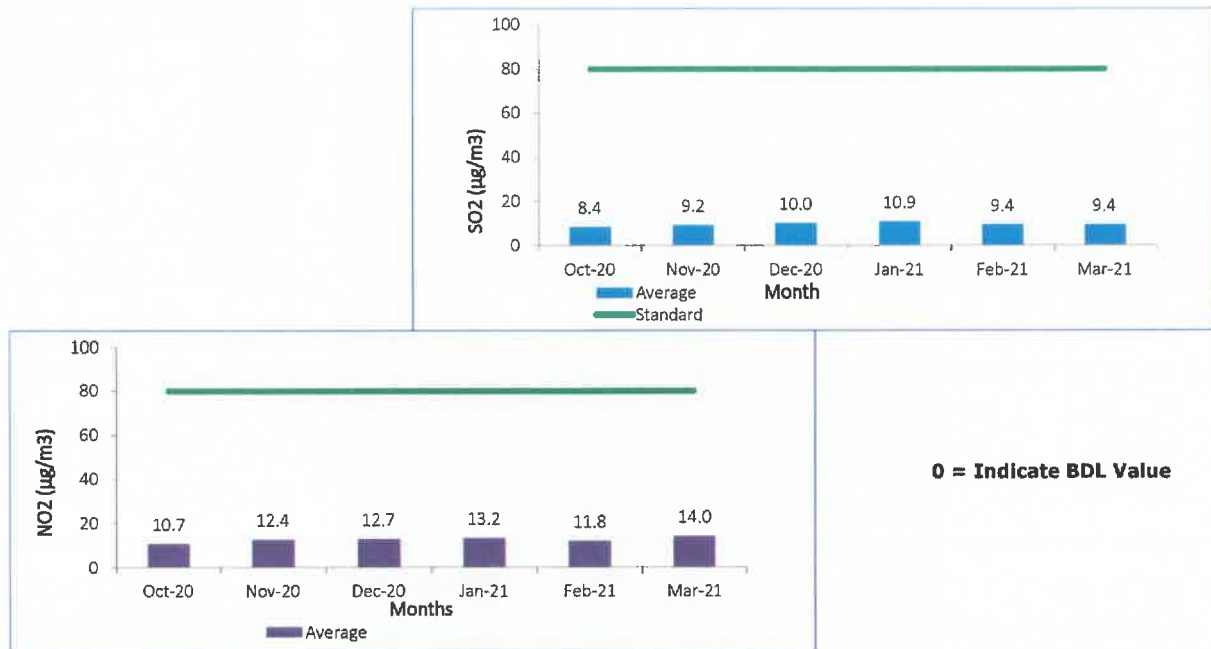
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near Hospital)

Annexure VII



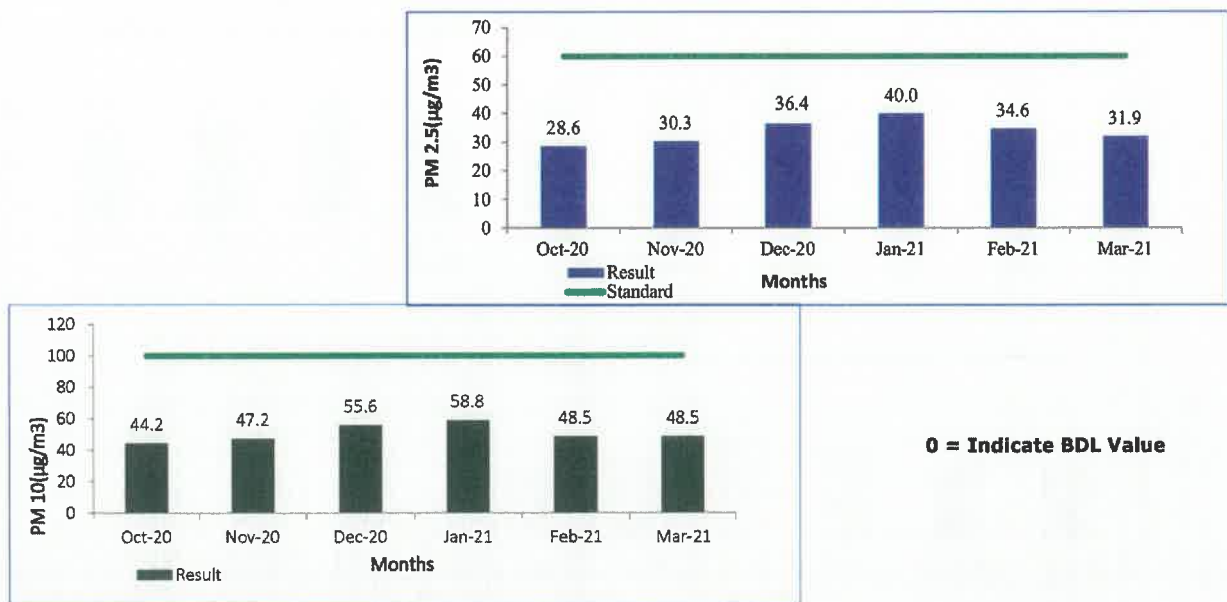
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near Hospital)

Annexure VII



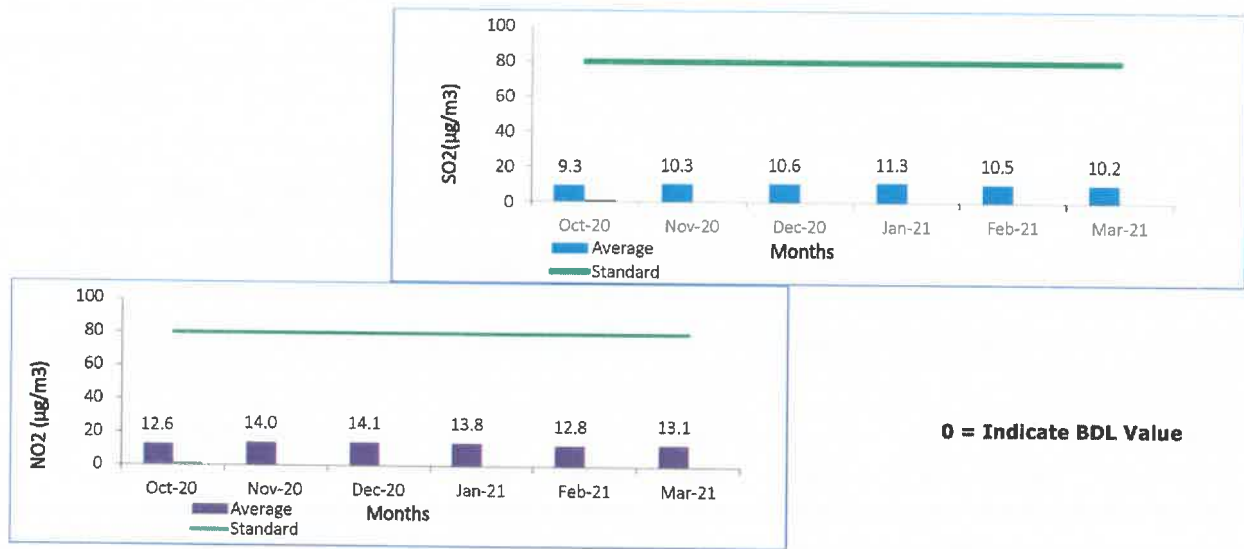
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near Gate of Mine Pit No.1)

Annexure VII



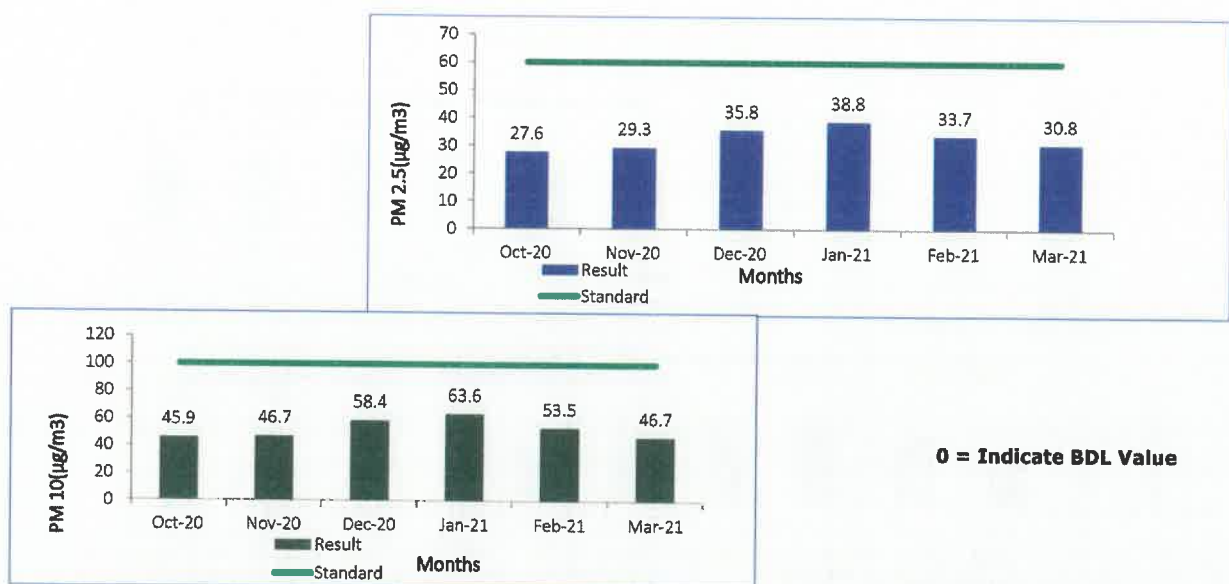
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near Gate of Mine Pit No.1)

Annexure VII



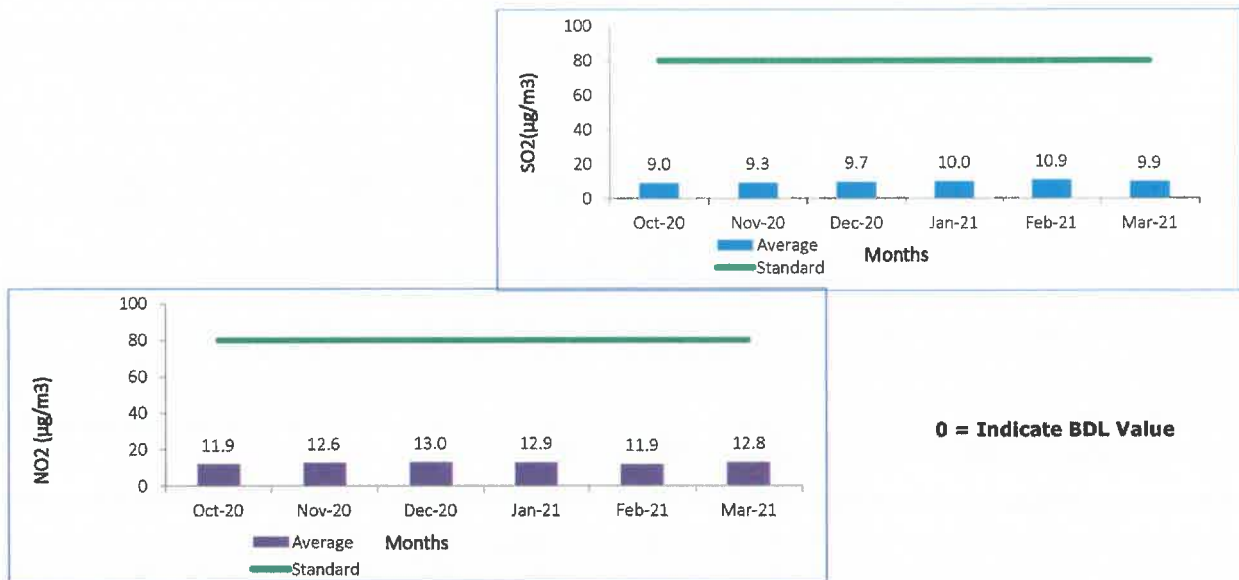
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near STP Area)

Annexure VII



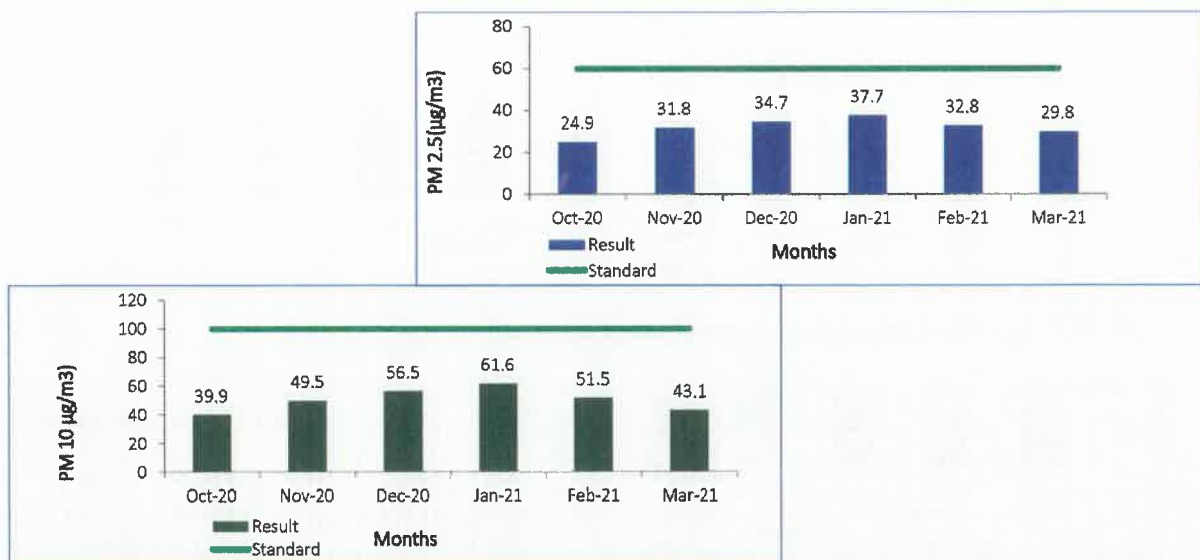
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near STP Area)

Annexure VII



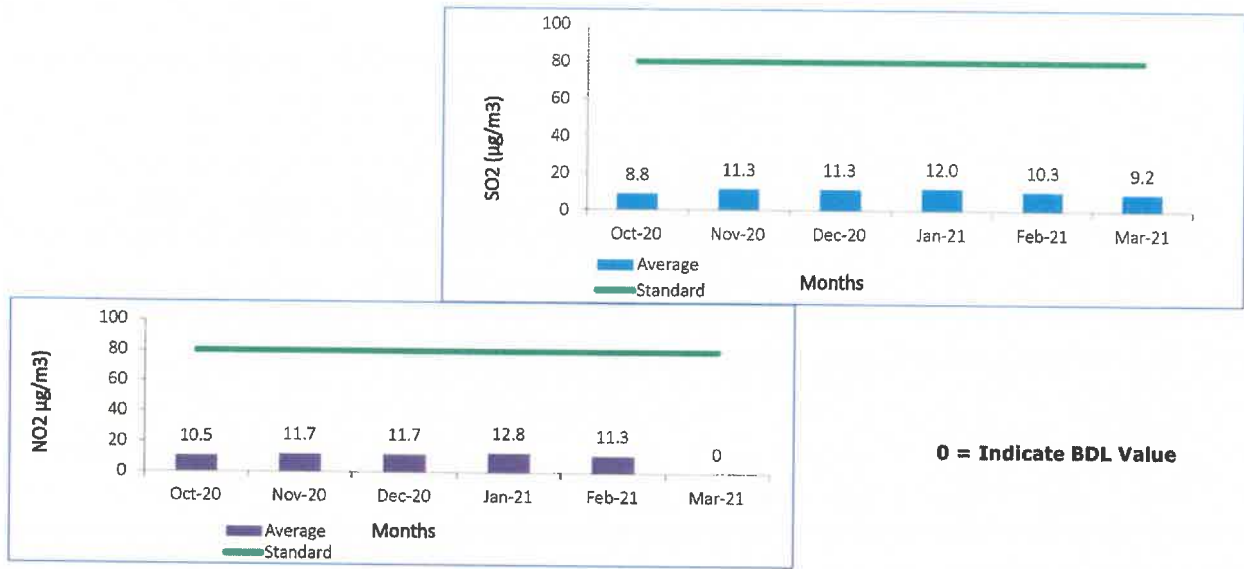
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near Worker Colony)

Annexure VII



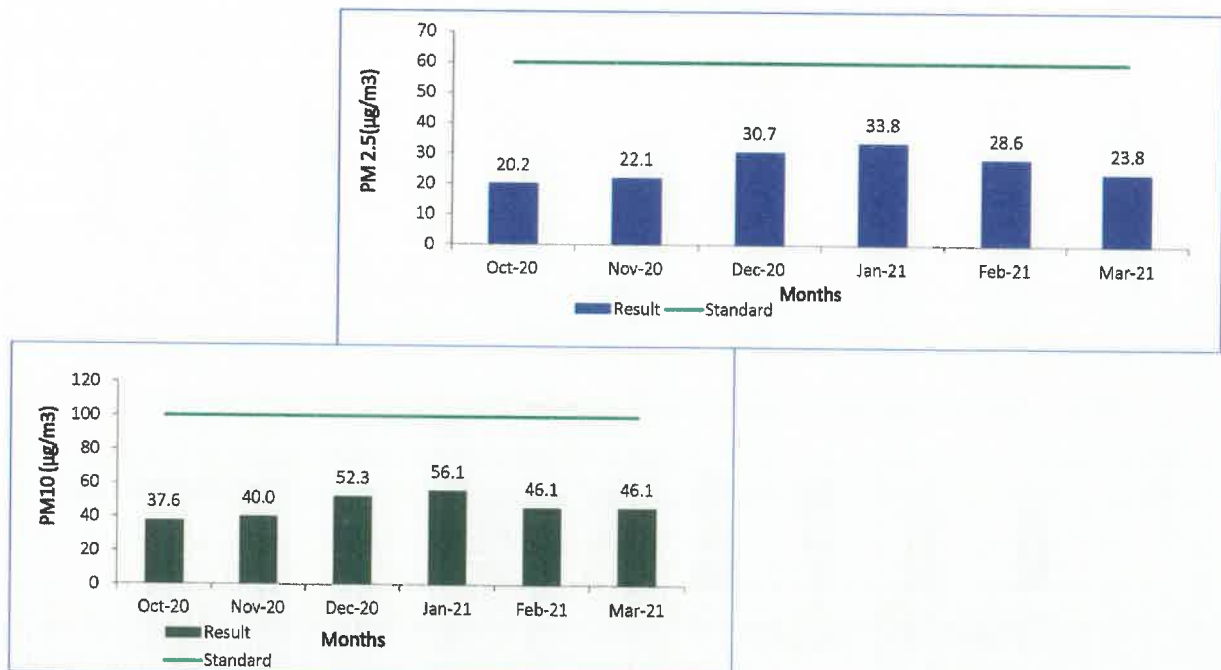
CLINKER PLANT, NARSINGARH, AMBIENT AIR QUALITY RESULTS (Near Worker Colony)

Annexure VII



LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Main Office)

Annexure VII



LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Main Office)

Annexure VII



0 = Indicate BDL Value

LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Back Filling Area)

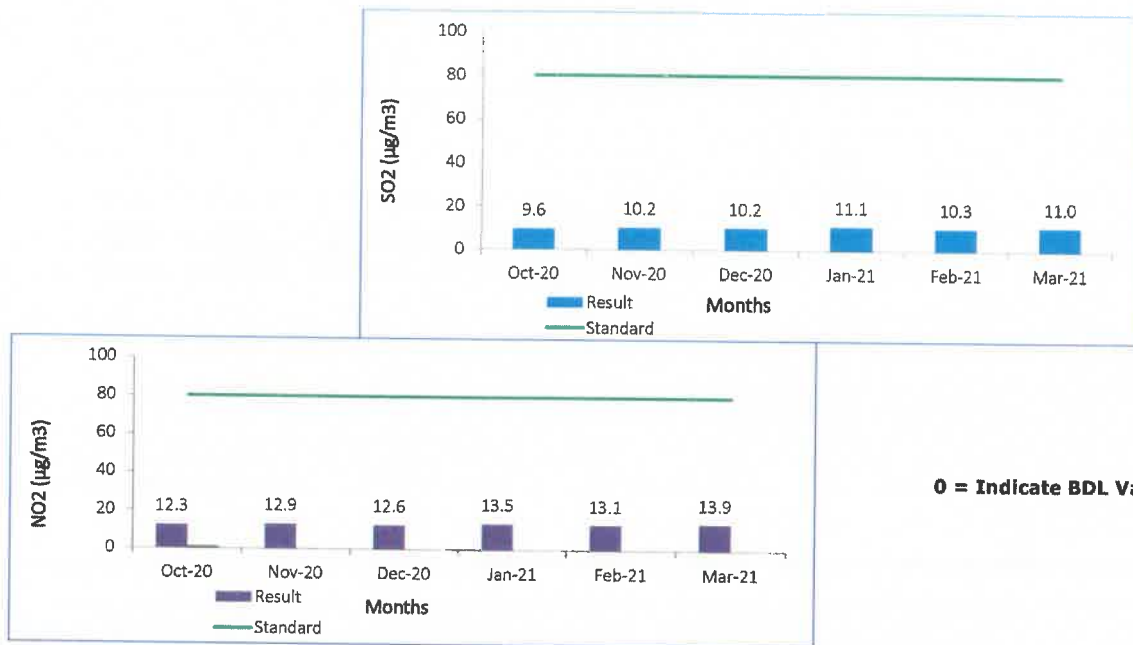
Annexure VII



0 = Indicate BDL Value

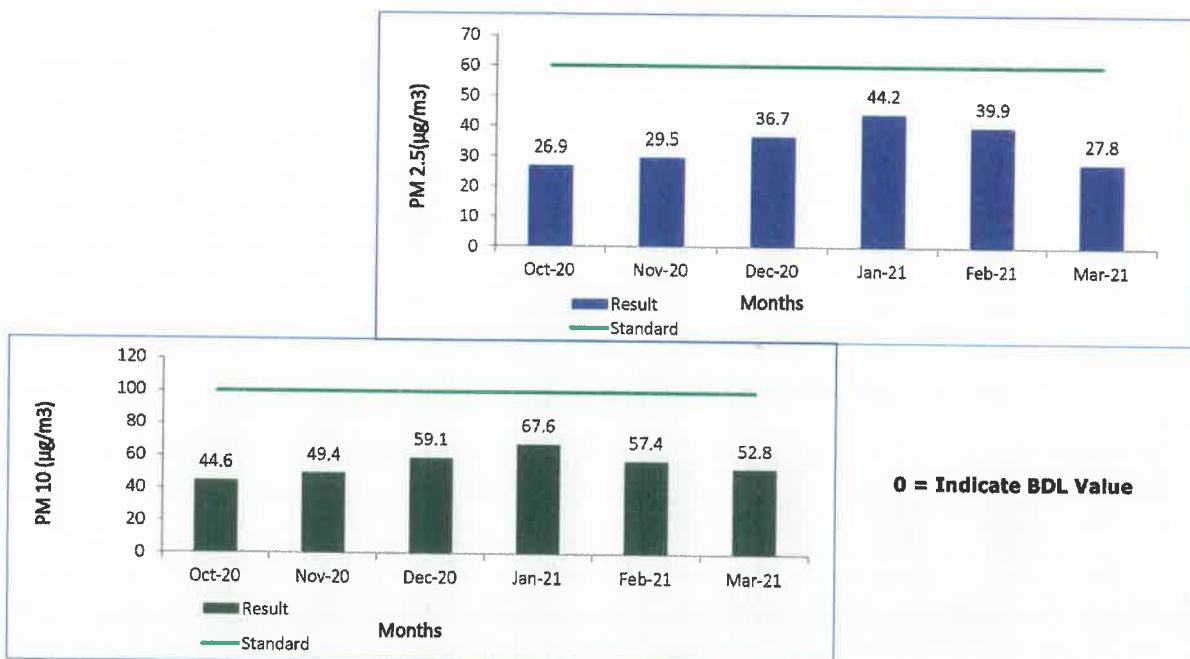
LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Back Filling Area)

Annexure VII



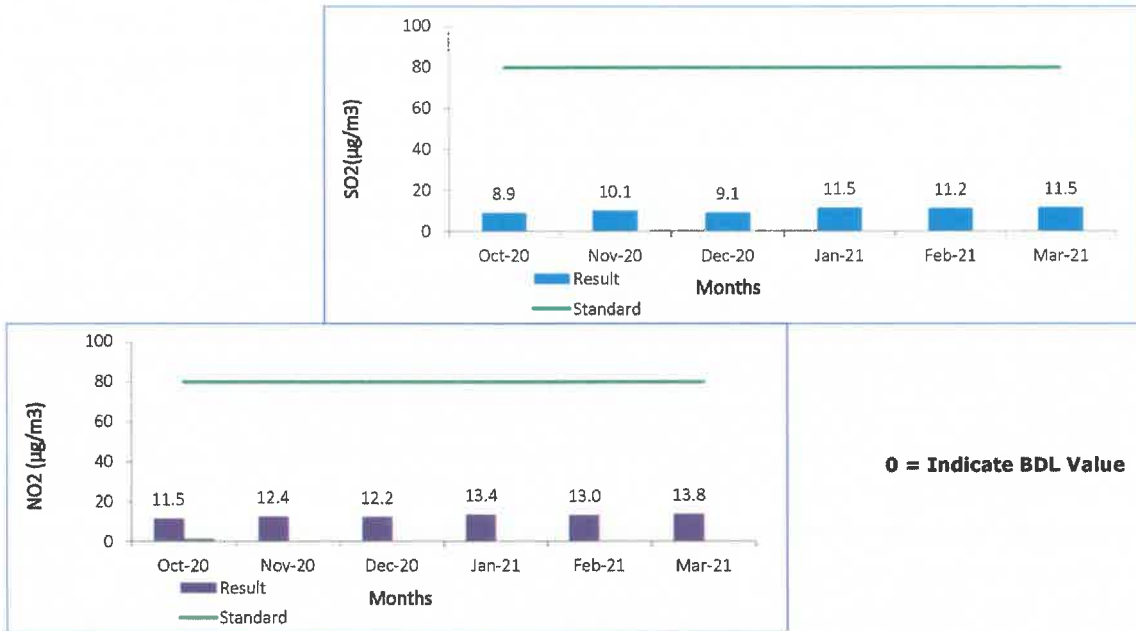
LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Mine Pit)

Annexure VII



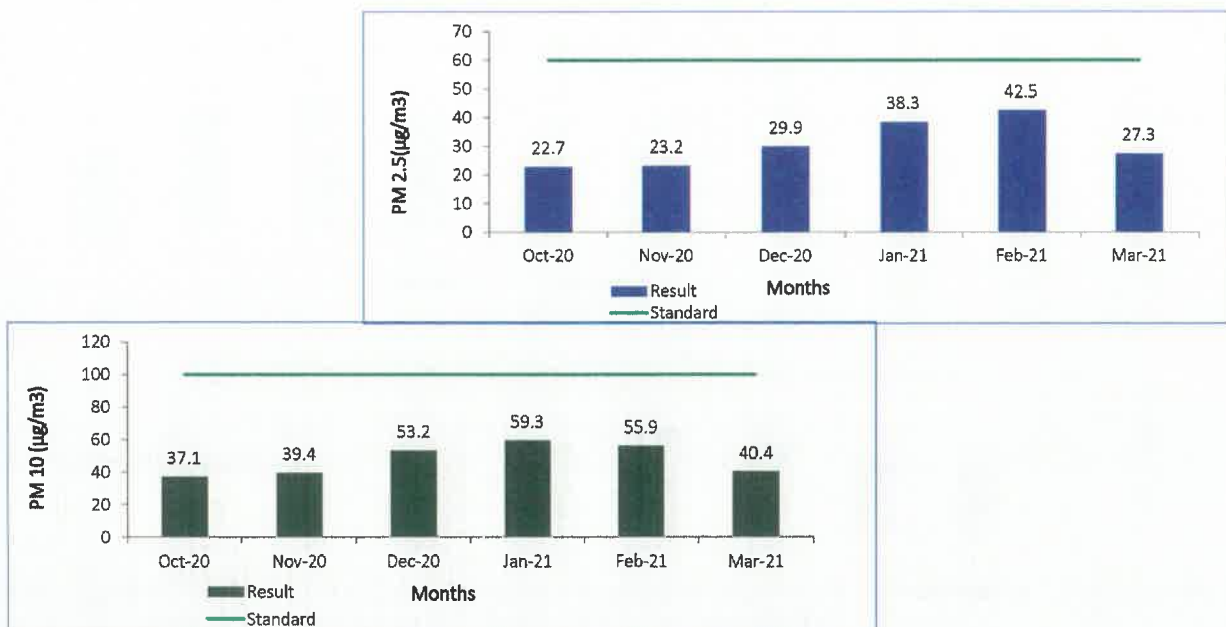
LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Mine Pit)

Annexure VII



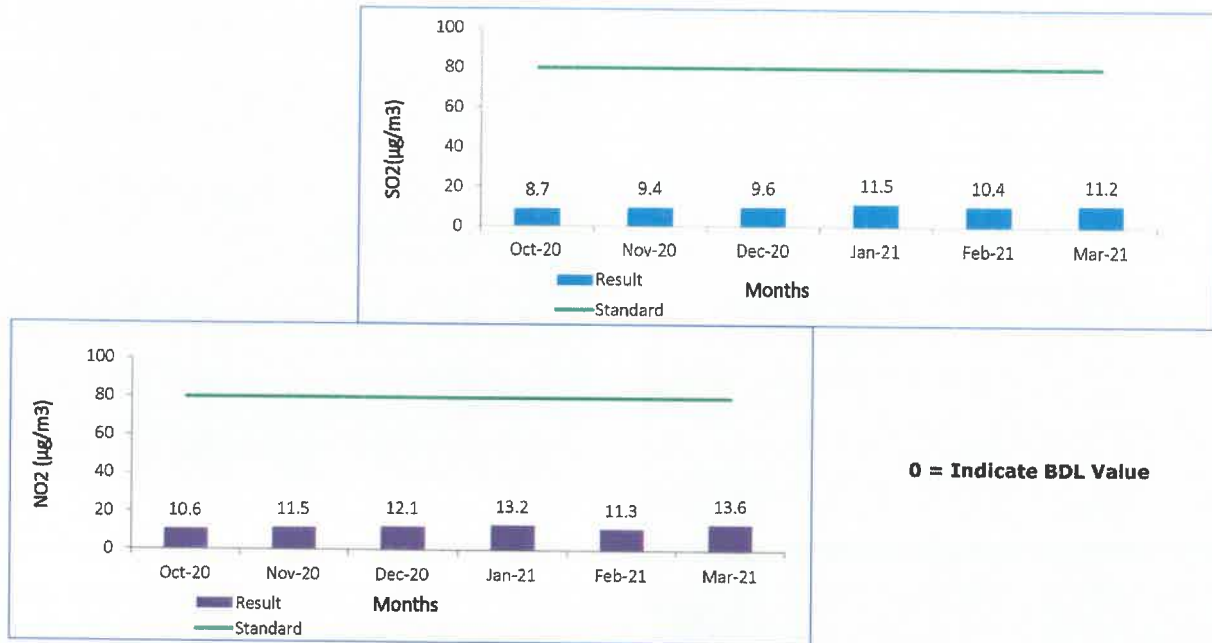
LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Temple)

Annexure VII



LIME STONE MINES PATHARIA, AMBIENT AIR QUALITY RESULTS (Near Temple)

Annexure VII



Compliance status

S.N.	Condition	Status / Compliance
6.	Data on ambient air quality stack emission and fugitive emissions shall be uploaded on the company's website and also regularly submitted online to Ministry's Regional office at Bhopal, M.P. Pollution Control Board and Central Pollution Control Board as well as hard copy once in six months. Data on SPM, SO2 and NOx shall also be displayed prominently outside the premises at the appropriate place for the general public.	Data uploading on the company's website is now a routine practice. We are uploading bi-annual EC compliance report on our company website http://www.mycemco.com/ . URL of the page is http://www.mycemco.com/about-us/environment . Data is also being submitted to MoEFCC regional office , Bhopal M.P. Pollution Control Board and Central Pollution Control Board in hard and soft copy. Photographs showing in Annexure VIII the facility at plant for continuous ambient air quality monitoring station (CAAQMS)/ Continuous emission monitoring system for stack (CEMS). The online data is being directly uploaded to the website of CPCB and MPPCB and one online data display board has been installed at company main gate for local public.

Contd..

Photographs of CAAQMS

Annexure VIII



39

Compliance status

S.N.	Condition	Status / Compliance
7.	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.	<p>A 22 km long covered belt conveyer is established for transporting limestone from Patharia Mines.</p> <p>Water spraying arrangements have been made for suppression of dust starting from drilling, spraying on blasted muck, transport road, crusher hopper, grizzly feeder, transfer points of conveyor belts etc. Refer Annexure IX .</p> <p>One 12 KL mobile water tanker and another one 30 KL have been inducted into services for suppression of dust on haul roads for both the mines.</p> <p>Thick plantation near crushing plant, old ropeway loading & unloading station and in periphery of Mines exits.</p> <p>Adequate no. of pollution control equipment i.e. Hybrid filter, ESP, Bag House, Dust Collectors, Dust suppression system, Water Sprinklers and thick plantation is already exist in Clinkerisation unit.</p>

Air pollution mitigation measures

Annexure IX



WATER SPRINKLING ON BLASTED MUCK



WATER SPRINKLING ON HAUL ROAD



WET DRILLING PLUS DUST COLLECTOR

41 Name of presentation | Author | dd.mm.yyyy

Compliance status

S. No.	Condition	Status / Compliance
8.	The company shall make the efforts to utilize the high calorific hazardous waste in the cement kiln and necessary provisions shall be made accordingly. The company shall keep the record of the waste utilized and shall submit the details to ministry's Regional Office at Bhopal, CPCB and MPPCB.	There is no utilization of high calorific hazardous waste. Plastic waste is being incinerated in the existing kiln. The record of the same is being submitted to MPPCB time to time. Plastic waste incinerated in HCIL, Narsingarh for FY 2020-21 was Approx. 891 Tonne. Apart from This, we have received Consents from MPPCB for co-processing of various kinds of Hazardous waste in Cement Kiln.

Compliance status

S.N.	Condition	Status / Compliance
9.	Total water requirement shall not exceed 5015 m ³ /day from the mine pits and sonar river. A copy of permission letter shall be submitted to Ministry's Regional Office at Bhopal. The treated wastewater from STP and utilities shall be reutilized for green belt development and other plant related activities i.e. cooling and dust suppression in raw material handling area etc. after necessary treatment. 'Zero' discharge shall be strictly adopted and no effluent from the process shall be discharged outside the premises.	<p>According to the EIA report submitted to MoEF the daily water requirement shall increase to 7000 m³ per day for plant operation. An amendment letter has been received from MoEF for Water consumption in the plant i.e. 7000 m³/day vide letter no. F.No. J- 11011/1117/2008 IA II (I) dated 28.09.2011. Enclosed as Annexure No. X.</p> <p>The water requirement for mine operation will be 300 m³ /day for Patharia limestone mines.</p> <p>No industrial effluent generation is there, only sewage water is being generated from residential colony, which is being treated in STP. Treated water is being utilized for greenbelt & dust suppression. Therefore, "zero discharge" is being maintained.</p>

43 Name of presentation | Author | dd.mm.yyyy

Amendment letter for water consumption

F. No. J-11011/1117/2008-IA II (I)
Government of India
Ministry of Environment and Forests
(A Division)

Parvatan Bhawan
CGO Complex, Lodhi Road
New Delhi - 110 003
E-mail: subir.mishra@nic.in
Telephone: 011 - 2434 3873
Dated: 28th September, 2011

CORRIGENDUM


Subj: Expansion of Clinker Manufacturing Plant from 1.2 MTPA to 3.1 MTPA and captive mines of Narsingarh Limestone Mine and Patharia Limestone at Narsingarh, District Deogarh, Madhya Pradesh by M/s Diamond Cement Limited. - regarding amendment in environmental clearance.

The undersigned is directed to refer to this Ministry's letter of even no dated 24.08.2009 and your letter dated 09.09.2011 requesting the Ministry for amendment in environmental clearance accorded on 24.08.2009.

2. The matter has been examined. The line 3 of para 3 of environmental clearance order dated 24.08.2009 may be read as "Water consumption will increase from 2500m³/day to 7000 m³/day instead of water consumption will increase from 2500 m³/day to 4500 m³/day. In the specific condition i.e. in under para 5.0, the first line may be read as "total water requirement shall not exceed 7000 m³/day from the pits and Sonar River" instead of total water requirement shall not exceed 5015 m³/day from the pits and Sonar River.


3. All the terms and conditions stipulated in environmental clearance of even no dated 24.08.2009 shall remain valid. In future, in case of change in the scope of the project fresh environmental clearance shall be obtained.

This issues with approval of the Competent Authority.

Yours faithfully,

(Dr. P. L. Arora)
Secretary

To,
M/s Diamond Cement Limited
P.O. Narsingarh - 470 878, District Deogarh,
Madhya Pradesh

Ph: 07601-241301 to 306
Fax: 07601-241235
E-mail: diamond@diamondcement.in



Annexure X

44 Name of presentation | Author | dd.mm.yyyy

Compliance status

S.N.	Condition	Status / Compliance
10.	Rainwater harvesting measures shall be adopted for the augmentation of ground water at cement plant, colony and mine site. Besides, company must also harvest the rainwater from the rooftops and storm water drains to recharge the ground water. The company must also collect rain water in the mined out pits of captive lime stone mine and use the same water for the various activities of the project to conserve fresh water and reduce the water requirement pressure from the river. The Company shall construct the rain water harvesting and groundwater recharge structures outside the plant premises also in consultation with local Gram Panchayat and Village Heads to augment the ground water level. An action plan shall be submitted to Ministry's Regional Office at Bhopal within 3 months from date of issue of this letter.	<p>Rain Water recharging/ Harvesting system has already been implemented in plant & colonies.</p> <p>It was proposed to construct a water pond in the nearby village for collection of rain water. After consultation with Gram panchayat, a water pond has been constructed in Narsingarh village. Photograph of the same has already been submitted along with previous EC compliance report dated 28.06.2011. The cost is involved of Rs. 23 Lakhs for above projects.</p> <p>The details and photographs are attached as Annexure XI & XII.</p>

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Rain water recharge to ground water table: Plant & colonies

Annexure XI

Roof Top RWH System					
S. No.	Year	Area of Roof of buildings (m ²)	Rain fall (m)	Total Water Collection on the roof (m ³)	Total Water recharge to Ground Water Table (m ³) (80% of the total water collection)
1	2017	12719.46	0.61	7758	6206
2	2018	12719.46	0.96	12210	9768
3	2019	12719.46	1.23	15644	12515
4	2020	12719.46	1.05	13354	10684

Surface Runoff RWH System						
S. No	Narsingarh (Year)	Total Area (Ha)	Total Area (M ²)	Av. Rain Fall (m)	Run-off coefficient	Water Harvesting Potential (M3)
1	2017	6.72	67250	0.61	0.85	34869
2	2018	6.72	67250	0.96	0.85	54876
3	2019	6.72	67250	1.23	0.85	70310
4	2020	6.72	67250	1.05	0.85	60021

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Rainwater harvesting structures

Annexure XII



RWH Filter

RWH Filter installed at HCIL Colony



RWH System installed at HCIL School Building

Rainwater harvesting structures

Annexure XII



Roof top Rain Water Harvesting System at plant



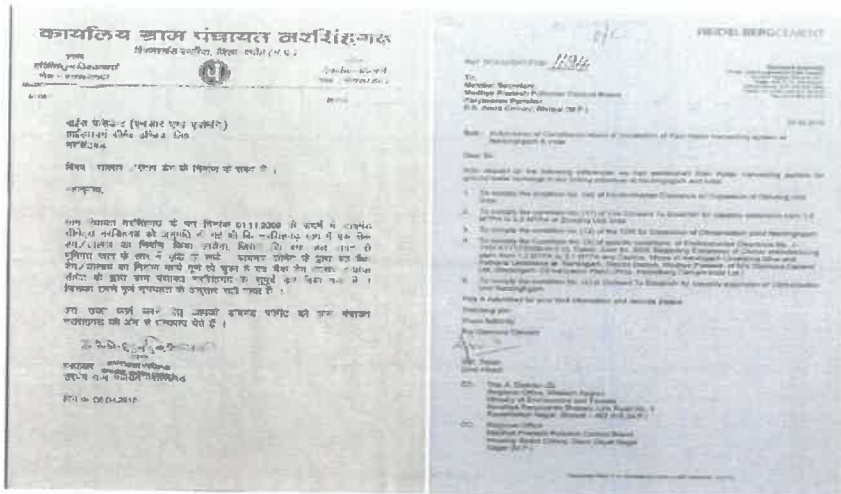
Surface Rain Water Harvesting System at colony



Water Reservoir at plant Colony

Permission/ completion letter from local gram panchayat- Narsingarh for water pond/ check dam

Annexure XII



Letter for Completion of Rain Water Harvesting System at Narsingarh & Imli to MPPCB and MoEF



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Compliance status

S.N.	Condition	Status / Compliance
11.	The project proponent shall modify the mine plan of the project at the time of seeking approval for the next mining scheme from the Indian Bureau of Mines so as to reduce the area for external over burden dump by suitably increasing the height of the dumps with proper terracing. It shall be ensured that the overall slope of the dump does not exceed 280. The final slope of the lime stone mine pit shall not exceed 450.	No separate dumping yard is required in Patharia Limestone Mines and in present practice of mining, total waste material including overburden and screen rejects is being utilized for back filling of mined-out area. The back filling of waste material is being carried out in mined out area in natural sequence i.e. hard reject at the bottom of the pit followed by sub-soil and top soil subsequently. The area is reclaimed and rehabilitated by plantation or cultivation. Photographs attached as Annexure XIII
12.	Topsoil, if any, shall be stacked with proper slope at earmarked site(s) only with adequate measures and shall be used for reclamation and rehabilitation of mined out areas	The reclamation of mined out area is a continuous process in our mining and therefore, separate storage of top soil is not required. Whatever top soil is being generated is consumed simultaneously for reclamation purpose. Refer Annexure XIV.

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Photographs of reclaimed area

Annexure XIV



Plantation & Standing Crop at Rehabilitated land

51 Name of presentation | Author | dd.mm.yyyy

Photographs of Solid Waste Management

Annexure XIV



52 Name of presentation | Author | dd.mm.yyyy

Compliance status

S.N.	Condition	Status / Compliance
13.	The project proponent shall ensure that no natural water course shall be obstructed due to any mining and plant operations. The company shall make the plan for protection of the river passing through mine area premises and submit to the ministry's Regional Office at Bhopal	Some seasonal nallahs are passing through the lease area of Diamond Patharia Limestone Mine. So far the same have been kept undisturbed.

Contd....

Compliance status

S.N.	Condition	Status / Compliance
14.	The inter burden and other waste generated shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The total height of the dumps shall not exceed 30 m in three terraces of 10 m each and the over all slope of the dump shall be maintained to 280. The inter burden dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office, Bhopal on six monthly bases.	In Patharia Limestone Mine the overburden generated is concurrently backfilled to mined out area and dumping of the over burden is as per the desired standard.

Compliance status

S.N.	Condition	Status / Compliance
15.	<p>The void left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation to be done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.</p>	<p>Part of mined out areas have been converted into water reservoirs. Adequate space has been left between the fencing and the reservoir so as to prevent any accidental breach right into the pond. Terracing of the benches all along the water pond has been done. Safety boards have been suitably displayed at pond sites. Photographs of water pond is enclosed as Annexure XV.</p>

Fencing around rain water collected in mined out pit

Annexure XV



Rain Water Harvesting In Mine Pit

Annexure XV



MINES PIT OF NARSINGGARH MINES



MINES PIT OF PATHARIA MINES

Contd..

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Rain Water Harvesting In Mine Pit

DETAILS OF WATER AVAILABILITY IN MINE PITS (NARSINGGARH)					
S. No.	Pit No.	Accumulation of rainwater falling directly in the pit area			
		Pit Area x Rainfall (m ³)	(Mm ³)	Catchment Area x Rainfall x Runoff Coeff (m ³)	(Mm ³)
1	Pit-1 in Area-1	205650 m ² x 1.05 m	0.22	355 x 10 ⁴ x 1.05 x 0.35	1.30
2	Pit-2 in Area-2	82720 m ² x 1.05 m	0.09	95 x 10 ⁴ x 1.05 x 0.35	0.35
3	Pit-3 in Area-3	88970 m ² x 1.05 m	0.09	65 x 10 ⁴ x 1.05 x 0.35	0.24
4	Pit-4 in Area-3	115800 m ² x 1.05 m	0.12	165 x 10 ⁴ x 1.05 x 0.35	0.61
5	Pit-1 in Madia	25640 m ² x 1.05 m	0.03	10 x 10 ⁴ x 1.05 x 0.35	0.04
6	Pit-3 in Chainpura South	103000 m ² x 1.05 m	0.11	75 x 10 ⁴ x 1.05 x 0.35	0.28
7	Pit-3 in Chainpura East	10470 m ² x 1.05 m	0.01	25 x 10 ⁴ x 1.05 x 0.35	0.09
8	Pit-2 in Barkhera	16200 m ² x 1.05 m	0.02	24 x 10 ⁴ x 1.05 x 0.35	0.09
9	Pit-3 in Barkhera	101400 m ² x 1.05 m	0.11	10 x 10 ⁴ x 1.05 x 0.35	0.04
10	Pit-4 in Barkhera	300800 m ² x 1.05 m	0.32	145 x 10 ⁴ x 1.05 x 0.35	0.53
	Total		1.10		3.56

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Contd..

Rain Water Harvesting In Mine Pit

DETAILS OF WATER AVAILABILITY IN MINE PITS (PATHARIA)					
S. No.	Pit No.	Accumulation of rainwater falling directly in the pit area			
		Pit Area x Rainfall (m ³)	(Mm ³)	Catchment Area x Rainfall x Runoff Coeff (m ³)	(Mm ³)
1	Crusher East Pit	20200 m ² x 1.05 m	0.02	38.91 x 10 ⁴ x 1.05 x 0.35	0.14
2	Crusher West Pit	43200 m ² x 1.05 m	0.05	37.67x 10 ⁴ x 1.05 x 0.35	0.14
	Total		0.07		0.28

Compliance status

S.N.	Condition	Status / Compliance
16.	Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted, particularly after monsoon, and maintained properly.	In present mining practices there is no creation of overburden dumps and the overburden generated is being utilized for the purpose of reclamation of mined-out area. This is a continuous process and the void generated between active mining area and reclaimed area / area under reclamation serves as a water reservoir. Therefore, the water accumulated in these voids, is confined to mining pit itself and the same is utilized for spraying mining areas, roads, green belt development, etc, throughout the year and no separate de-siltation is needed in the process.

Compliance status

S.N.	Condition	Status / Compliance
17.	Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and inter burden dumps and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	<p>In our present mining practice there is no creation of waste/ inter-burden dumps. Advancement of active mining benches is being followed by reclamation using waste material in natural sequence and the same is rehabilitated by cultivation and plantation.</p> <p>The void generated between active bench and reclamation bench acts as used sump with sufficient capacity for accumulation of rain water which however, does not pass to any external water course.</p> <p>There is no need of separate siltation pond also. In existing mining practices there is no formation of dumps as we are practicing reclamation of mined-out area using overburden material in natural sequence.</p>

Compliance status

S.N.	Condition	Status / Compliance
18.	Dimension of the retaining wall at the toe of inter burden dumps and inter burden benches within the mine to check run-off and siltation shall be based on the rain fall data.	In existing mining practices there is no further formation of dumps as we have adopted reclamation of mined-out area using overburden material in natural sequence. Under these circumstances, there is no need to construct retaining wall at the toe of dumps.
19.	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board. The frequency of monitoring shall be four times a year- pre-monsoon (April / May), monsoon (August), post-monsoon (November), and winter (January). Data thus collected shall be sent at regular intervals to Ministry of Environment and Forests and its Regional Office at , Central Ground Water Authority and Central Ground Water Board.	<p>Regular monitoring of ground water level and quality is being carried on by establishing piezometers at suitable locations.</p> <p>Monitoring of ground water level and quality has been done by competent external agency.</p> <p>The report of Monitoring of ground water level and quality is regularly being submitted to the respective agencies time to time. Photographs of piezometers are enclosed as Annexure XVI.</p>

Photographs of Piezometers

Annexure XVI



Piezometer readings

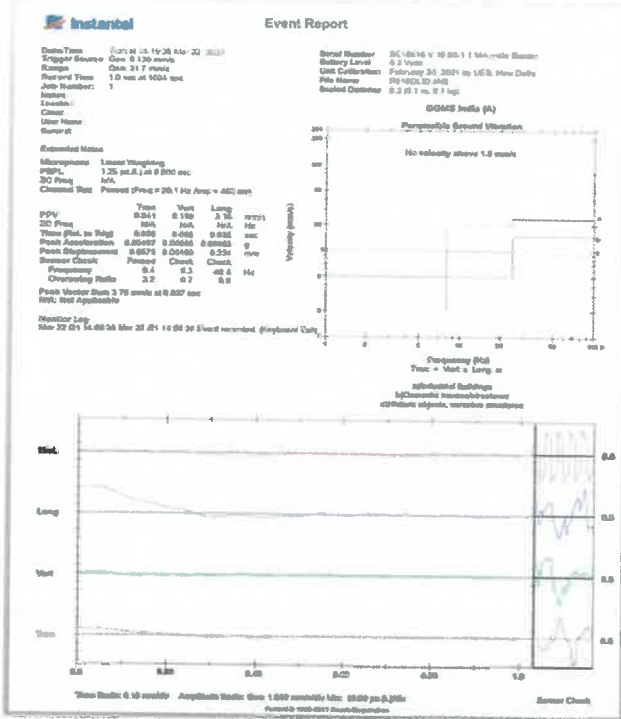
Annexure XVI

Location /Site: Patharia Mines	Jan-2021
	Piezometer reading (M)
Administrative Building	10.47
Plantation	14.08
Towards South of lease	25.10
Satpara to Patharia Lease Road	9.42
Magzine Building Satpara	31.88
Portable Magzine Neguwar	22.82
End of Leasae Boundary	15.20

Location /Site: Clinkrisation unit, Narsingarh	Jun-2020
	Piezometer reading (M)
Staff Colony Campus	27.60

Blasting using NONEL & monitoring by Minimate

Annexure XVII.



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GROUND VIBRATION (PPV < 10mm/Sec) MONITORING



Compliance status

21.	The project proponent shall adopt wet drilling.	A drill machine which is fitted with wet drilling arrangement and suppressing dust efficiently has been deployed for blast hole drilling.
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Compliance status

S.N.	Condition	Status / Compliance
22.	As proposed, green belt shall be developed in 33% in and around the plant as per the CPCB guidelines.	Total plant area is 191.77 Hectare and total greenbelt area is 74.635 Hectare (38%). Photographs of the same are given as Annexure XVIII.
23.	All the recommendations of the Corporate Responsibility on Environmental Protection (CREP) for cement plant shall be strictly followed	CREP recommendations are being complied with. Compliance report of CREP guidelines is attached as Annexure XIX.
24.	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	Monitoring of vehicle emissions is being done by Competent Govt. Agency. Lime stone is being transported from Patharia Mines to Clinker Plant through Covered Belt Conveyor (OLBC). Covered transport vehicles are being used for other minerals & no overloading is done.

Green belt development/ Plantation

Annexure XVIII



Green belt development/ Plantation

Annexure XVIII



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Compliance of CREP – Clinkerisation unit Narsingarh

Annexure XIX

S. No.	Agenda as per the Charter	Status
1	Cement Plants, which are not complying* with notified standards, shall do the following to meet the standards: • Augmentation of existing Air Pollution Control Devices — by July 2003 • Replacement of existing Air Pollution Control Devices — by July 2004	We have already installed the Pollution control Measures at all relevant places.
2	Cement Plants located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100 mg/Nm ³ limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nm ³ .	Clinkerisation unit does not fall under this category, however effective PCM have been provided to meet the proscribed norms.
3	The new cement kilns to be accorded NOC/Environmental Clearance w.e.f. 01.04.2003 will meet the limit of 50 mg/Nm ³ for particulate matter emissions.	The emission level from the stack is being maintained < 30 mg/NM ³ .
4	CPCB will evolve load based standards by December 2003.	Applicable Standards will be followed
5	CPCB and NCBM will evolve SO ₂ and NO _x emission standards by June 2004.	We are being followed MoEFCC standard dated 25.08.2014 for PM, SO ₂ & NO _x
6	The Cement industries will control fugitive emissions from all the raw material and products storage and transfer points by December 2003. However, the feasibility for the control of fugitive emissions from limestone and coal storage areas will be decided by the National Task Force (NTF). The NTF shall submit its recommendations within three months.	We have installed effective Bag filters as well as Dust Suppression systems at various transfer points to control the generation of fugitive emission.

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Contd.... Compliance of CREP. – Narsingarh

7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.	Petroleum coke (Pet-coke) along with coal is being used as fuel in the Kiln
8	After performance evaluation of various types of continuous monitoring equipment and feed back from the industries and equipment manufacturers, 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.	CAAQMS and CEMS have already been installed and operative and online monitoring data is being uploaded to CPCB & MPPCB server.
9	Trippings in kiln ESP to be minimized by July 2003 as per the recommendation of NTF.	A latest technological PCM i.e. Hybrid filter (Combination of ESP & Bag House) and RABH have been installed at the Kilns to avoid the stack emission during tripping.
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	Fly ash is not being consumed in manufacturing of Clinker. However Fly ash is being utilized in Grinding unit Imlai for manufacturing of PPC.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	Presently we are not utilizing any Hazardous waste as a fuel in the kiln.
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003.	Waste Heat Recovery Power Plant (15 MW) has installed and being operation from 15.02.2016.

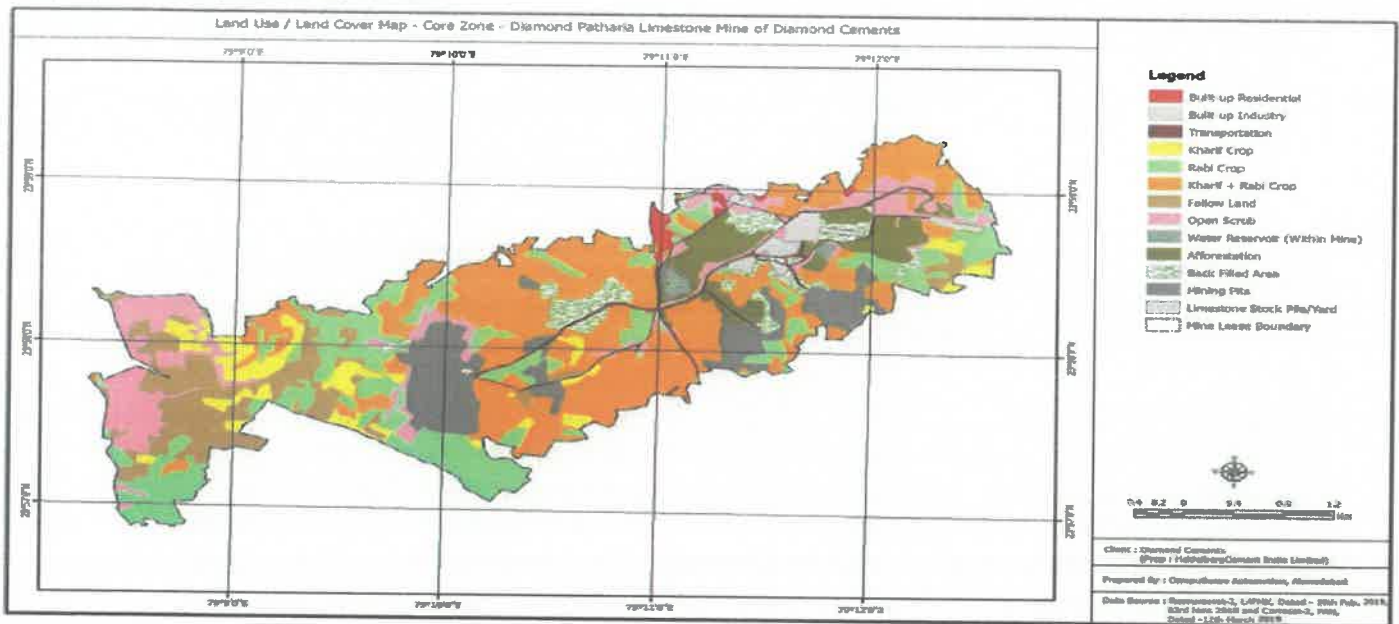
71 Name of presentation | Author | dd.mm.yyyy

Compliance status

S.N.	Condition	Status / Compliance
25.	Digital processing of the entire lease area using remote sensing technique shall be done regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bhopal.	Digital processing of both leases was carried out in the course of EIA and report was already submitted to the Board. The Latest Digital processing report is being attached as Annexure XXI for Patharia Mines.

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Figure :5 Land Use / Land Cover Map of Within Mine Lease Area



Land Use and Land Cover Of Core Zone

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Digital Processing

S.No.	Class	Area within mine lease	
		Area in Hectare	% Area
1	Built-up Residential	6.29	0.50
2	Built-up Industrial	12.51	1.00
3	Transportation	4.68	0.38
4	Kharif Crop	364.79	29.25
5	Rabi Crop	62.32	5.00
6	Double Crop	408.96	32.79
7	Fallow Land	35.45	2.84
10	Open Scrub	210.56	16.88
13	Mine Sump	6.35	0.51
14	Afforestation	35.57	2.85
15	Back Filled Area	40.92	3.28
16	Mining Pits	55.50	4.45
17	Limestone Stock Pile/Yard	3.36	0.27

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Compliance status

S.N.	Condition	Status / Compliance
26.	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure, for approval.	The final mine closure plan as per guidelines of Indian Bureau of Mines has already been submitted within time limits with IBM. Lease of Lime stone mines Narsingarh has expired on 31st July 2015 and its mine closer plan has already submitted to the MoEFCC & MPPCB vied our letter HCIL (NGH)-ENV-F-002/2015 dt. 13.08.2015.
27.	The company shall comply with all the commitments made during public Hearing on 28th June 2008	Work under CSR is a continuous process and we undertake the same every year. Major issues raise during public hearing were regarding drinking water, roads, education and health safety. Photographs of CSR activity are attached as Annexure XXIA.
28.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Facility for housing, sanitation, drinking water, medical health care etc were provided during project period. Project is already completed in 2013, hence continuation of such facilities are not applicable onwards.

Details of CSR activities (FY 2020-21)

(Common For Clinkerisation Unit Narsingarh, Lime Stone Mines, Patharia and Grinding Unit Imlai)

Annexure XXIA

HCIL - CSR 2020-21		Damoh
S.No.	CSR Activities	Total Expenses (Lacs)
1	Education Programme	198.0
2	Community Health Programme	44.0
3	Livelihood Enhancement Programme	31.5
4	Infrastrcuture Development	68.5
5	Social Engagament Programme	62.8
Grand Total in Lac		404.8

Some of the CSR activities (Education & Health)

Annexure XXIA



Educational Kit Distribution in Schools



77 Name of presentation | Author | dd.mm.yyyy Health Initiatives (Distribution of Mask and First aid Kits)

Some of the CSR activities (Livelihood Enhancement)

Annexure XXIA



Silai School: running in association with USHA International Ltd



78 Name of presentation | Author | dd.mm.yyyy Electrical & Home appliances repairing

Beauty Parlour

Some of the CSR activities (Infrastructure & Social Engagement) Annexure XXIA



Road & shed Construction



Distribution of Tri-Cycle & Fodder Seed

79 Name of presentation | Author | dd.mm.yyyy

Compliance status

S.N.	Condition	Status / Compliance
B. GENERAL CONDITIONS		
1.	The project authority shall adhere to the stipulations made by State Pollution Control Board (SPCB) and State Government	We complied with the conditions of the consent, stipulated by MPPCB.
2.	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	The capacity expansion project upto 3.1 Million Tonne per Annum (MTPA) Clinker, Lime stone Mines Narsingarh (for production of 1.49 MTPA Lime stone) and Lime stone Mines Patharia (0.75 to 4.5 MTPA Lime stone) for which consent to establish & consent to operate has been granted by MPPCB. Commercial production commenced from 18.02.2013 and the same has been communicated to MoEFCC vide letter DC:ENV:CU:NAR:5A-3/968 dated 28.02.2013.
3.	At least four ambient air quality monitoring stations shall be established in the down wind direction as well as where maximum ground level concentration of SPM, SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office and SPCB / CPCB once in six months.	<p>We have installed 4 numbers of ambient air quality monitoring stations each at Clinkerisation unit, Narsingarh and Patharia lime Stone Mines. The parameters PM-2.5, PM-10, CO, SO₂ & NO_x in ambient air and Particulate Matter emission from stacks are being monitored and the report is submitted to the MoEFCC, CPCB, MPPCB head offices and regional offices along with EC compliance report.</p> <p>Apart from this, we have installed sufficient numbers of Continuous Ambient Air Quality monitoring Station (CAAQMS) & Continuous Emission monitoring station (CEMS) in our Plant (2 nos. of CAAQMS & 9 nos. of CEMS) & Mines (1 nos. Of CAAQMS) as per legal requirement. The online data is being punched at CPCB & MPPCB website.</p>

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Compliance status

S.N.	Condition	Status / Compliance
4.	Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	No industrial waste water is being generated from the plant/mines. Only sewage water is being generated from the residential colony. Sewage Treatment Plant (STP) has already been installed and operative and confirming the prescribed standards. Analysis report is enclosed as Annexure XXII.
5.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	<ul style="list-style-type: none"> ➤ Silencers /enclosures are being provided to the high noise generating machinery. ➤ Ear defenders are provided to all operators and employees working near the machinery. ➤ Use of Rock breaker to avoid secondary blasting. ➤ Controlled blasting is being carried out. ➤ Proper maintenance, oiling and greasing of machines at regular intervals is being done to reduce generation of noise. ➤ Regular monitoring is being done and report is being submitted to the respective authorities.
6.	Proper housekeeping and adequate occupational health program shall be taken up. Occupational Health Surveillance program shall be done on a regular basis and records maintained properly for at least 30-40 years. The programs shall include lung function and sputum analysis tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.	The Occupational Health Surveillance program is being conducted on a regular basis. The recommended tests have been included in this program and record is being maintained as advised.

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Sewage Treatment Plant (600 KLD)

Annexure XXII



82 Name of presentation | Author | dd.mm.yyyy

Results of treated sewage water

Annexure XXII

M/s Diamond Cement (Prop. Heidelberg Cement India Limited)							
CLINKERISATION UNIT NARSINGHARH							
Results of Treated Sewage Water							
S. No.	Parameters	22.10.2020	24.11.2020	17.12.2020	25.01.2021	22.02.2021	18.03.2021
		STP Outlet	STP Outlet	STP Outlet	STP Outlet	STP Outlet	STP Outlet
1	pH	7.50	7.47	7.56	7.40	7.42	7.38
2	TSS	7.5	8.2	7.5	6.7	6.5	7.5
3	TDS	349.5	349.5	325.0	345.3	325.4	356.4
4	BOD	7.2	7.7	7.2	7.3	6.9	6.8
5	COD	25.7	27.6	25.6	24.6	25.6	24.6
6	Oil & Grease	BDL	BDL	BDL	BDL	BDL	BDL
7	Sodium Adsorption Ratio (SAR)	0.88	0.76	0.75	0.77	0.72	0.74
8	Fecal Coliform (FC)MPN/100ml	87	84	78	82	76	77

Note: All parameters are in mg/l except pH

Oil & Grease BDL < 1.0 (mg/l)

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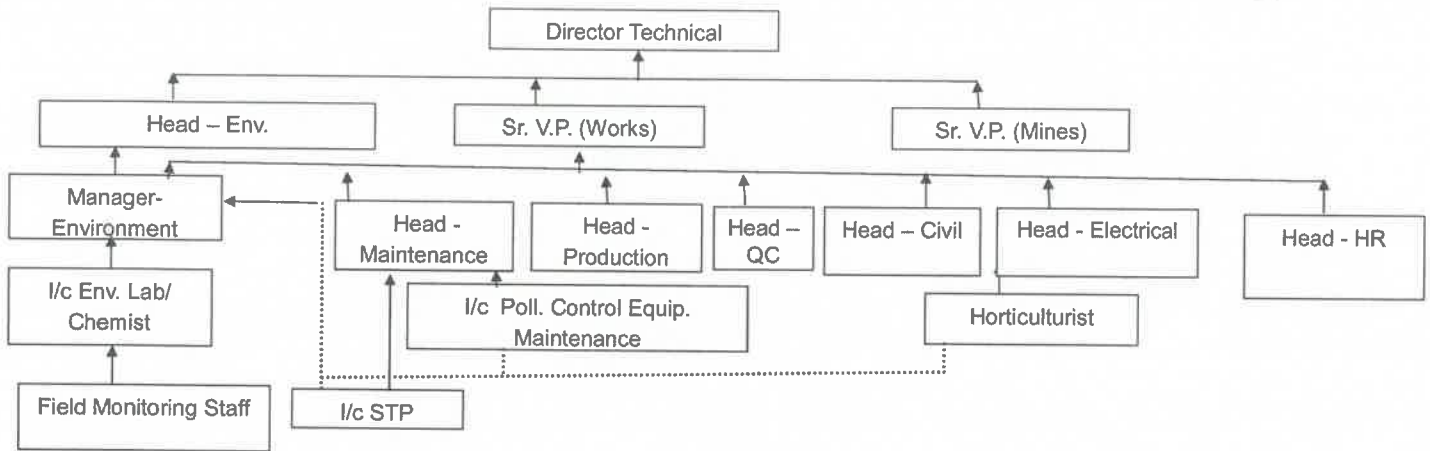
Compliance status

S.N.	Condition	Status / Compliance
7.	The company shall undertake eco-development measures including community welfare measures in the project area	A number of eco-developmental measures are already being carried out. Rain water harvesting by making of water pond in the nearby villages is also completed. A number of community development measures exist for the welfare of the surrounding villages under CSR activity.
8.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP.	Already being complied.
9.	A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	The Environmental Management Cell is in existence. The monitoring functions have been outsourced to an agency recognized by the NABL/MoEFCC. The agency has set up its own laboratory facilities. Organizational setup of Environmental Management Cell enclosed as Annexure XXIII.

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Environmental management cell

Annexure XXIII



Name	Position	Qualification	Responsibility
Sandeep Kumar Tiwari	Manager- Environment	M.Sc (Tech) in Environment Science & Technology, M.Phil in Env. Biology	Preparation of all desired documents and Reports. Look after Environment Department of the plant.
Env. Monitoring team (5 Person)	Third party contract to NABL certified Laboratory for Environment performance monitoring in which man power have qualification M.Sc. , B.Sc. etc.		
Online Monitoring	M/s SWAN	B.E- Instrument	Online monitoring

85 Name of presentation | Author | dd.mm.yyyy

Environmental Laboratory

Annexure XXIII



86 Name of presentation | Author | dd.mm.yyyy

Compliance status

S.N.	Condition	Status / Compliance
10.	Adequate fund shall be allocated to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Time bound implementation schedule for implementing all the conditions stipulated herein shall be submitted. The funds so provided shall not be diverted for any other purpose.	The details of the expenses is attached in Annexure –XXIV . However installation of necessary Pollution Control Measures will be within the project commissioning phase.

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Expenditure on Environment management incurred in (Apr 2020 to Mar 2021)

Clinkerisation Unit - Narsingarh

S. NO.	DETAILS	COST RS. LAKHS (APPROX)
1	Stack and Ambient Air Quality Monitoring (Including Clinkerisation Unit Narsingarh, Lime Stone Mines Narsingarh & Lime Stone Mines Patharia)	29.80
2	Operation and maintenance of Sewage treatment plant	15.44
3	Continuous Ambient Air Quality Monitoring Station (CAAQMS) & Continuous Emission Monitoring System (CEMS)	20.21
4	Green belt Development and maintenance	56.05
5	House Keeping Expenses	28.19
6	Awareness Program including Observing Environment Day/Ozone Day (Common for Clinkerisation unit, Grinding unit & mines)	0.15
7	Maintenance of Air Pollution Control Devices	161.49
8	Road Sweeping (manual) and through Auto sweeper	33.87
9	Maintenance of Rain water harvesting & construction of new RWHS	1.30
10	Municipal Waste Management System	14.00
11	Cost of Electricity consumed by Pollution control devices (Approx.)	623.70
12	Recurring cost of SNCR (Cost of Ammonium hydroxide)	11.04
13	Plastic waste co-processing cost	48.95

Lime Stone Mines - Patharia

S. NO.	DETAILS	COST RS. LAKHS (APPROX)
1	Pollution control at Patharia Mines i.e. Water sprinkling on haul road etc.	9.39
2	Water sprinkling at screen plant/ crusher	3.57
3	Plantation and green belt development	16.83
4	Bag filter operation cost	1.27
5	Power consumption for running Pollution control devices	35.97

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Compliance status

S.N.	Condition	Status / Compliance
11.	The Regional Office of this Ministry / CPCB / SPCB shall monitor the stipulated conditions. The project authorities shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	A six monthly compliance report is being submitted regularly to the respective authorities.
12.	The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	The relevant information has already been submitted.
13.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests. No change in the calendar plan including excavation, quantum of limestone and waste shall be made	No change in mining technology and scope of working is being/will be made without prior approval of the Ministry of Environment & Forests.

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Compliance status

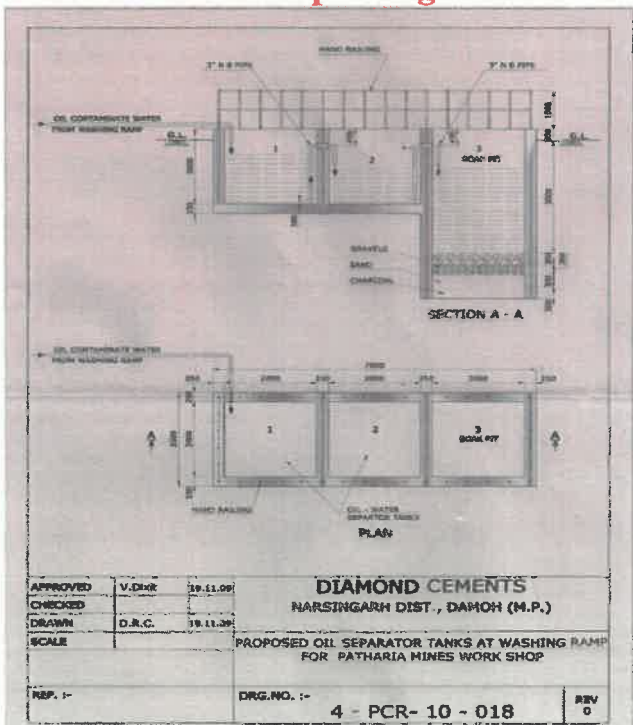
S.N.	Condition	Status / Compliance
14.	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. shall be provided with ear plugs/ muffs.	Noise levels in Working Environment is as per factory act. Ear muffs have been provided to the workers engaged in HEMM operations.
15.	Industrial waste water (workshop and waste water from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	Oil and grease trap has been installed before discharge of workshop effluents. Photographs are attached as Annexure XXV.
16.	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed	All the relevant PPEs are being provided to all the workmen for their safety i.e. Safety Helmet, goggles, ear defenders, gloves nose mask, shoe etc. Photographs are attached as Annexure XXVI. During project work PPEs are also being provided to the workers at site. Occupational health surveillance program covers all the workers engaged at site one specimen copy attached as Annexure XXVII .

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Oil & Grease trap: design details



Size of each tank of Oil & Grease Trap system
 Tank No.1: 2X2X2 Mtrs
 Tank No.2: 2X2X2 Mtrs
 Tank No.3 : 2X2X4.2 Mtrs
 Pump details: 3.7 KW (3 Phase), Discharge: 5 m3/hr.



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USE OF PPEs

Annexure –XXVI



USE OF PPEs BY DRILL OPERATOR



USE OF PPEs BY EXCAVATOR OPERATOR

Occupational health surveillance program

Annexure –XXVII

FORM 'O'
[The rules 22-F (2) and 26-L]
Report of medical examination under rule 26-B.
(To be forward to Inspector)


Certificate No. 1340

Certified that **Shri Rajesh Pandey** employed in in mine.
Form B No. has been examined for an **intermittent** medical examination. **Hertha** appears to be
..... years of age. The findings of the examining authority are given in the enclosed sheet.
It is directed that **Shri Rajesh Pandey** the Rajesh Pandey

(a) is medically fit for any employment in mines.

(b) is suffering from and is medically unfit for
(i) any employment in mines; or
(ii) any employment below ground; or
(iii) any employment or work

(c) is suffering from and should get this disability
examined and should be again examined within a period of months. **Hertha** will
appear for re-examination with the result of test of and the opinion of
..... specialist from **Hertha** may be permissive
provided it is not in his/her during this period.



Dr. D. P. Deotale
M.B.B.S. A.P.M.C.
Signature of **Dr. D. P. Deotale**
Dr. DEOTALE P. DEOTALE
M.B.B.S. A.P.M.C. (Reg. No. 48308)
Name and Designation in
Block letters

Place:
Date:

* Delete whatever not applicable.
** One copy of the certificate shall be handed over to the person concerned and another copy shall be sent to the manager of the mine concerned by registered post; and the third copy shall be retained by the examining authority.

Compliance status

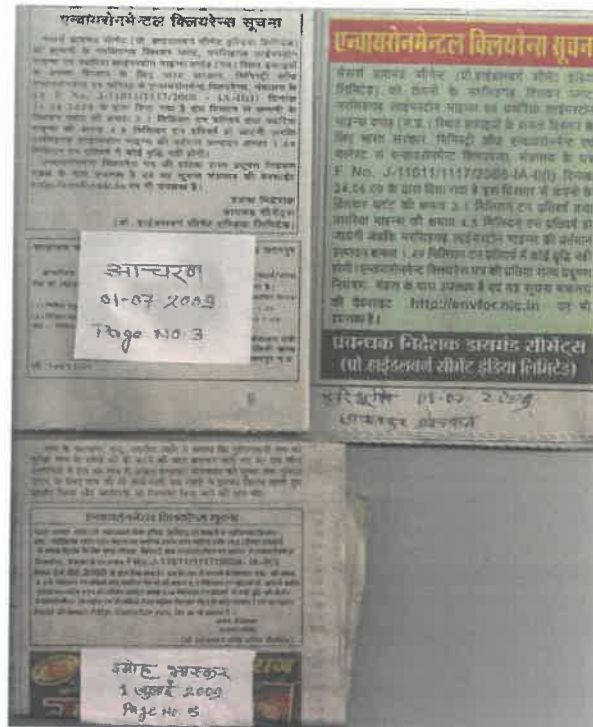
S.N.	Condition	Status / Compliance
17.	The project authorities shall inform to the Regional Office located regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	The relevant information has already been submitted.
18.	A copy of clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation, if any, was received while processing the proposal.	Copy of the clearance letter has already been circulated to the Gram Panchayats & acknowledgement received on 2nd July 2009. There are no local NGOs.
19.	State Pollution Control Board shall display a copy of the clearance letter at the Regional office, Gram Panchayat, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.	-

Compliance status

S.N.	Condition	Status / Compliance
20.	The project authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at "http://envfor.nic.in" and a copy of the same shall be forwarded to the Regional Office of this Ministry.	The condition complied with. Advertisements have already appeared in the local newspapers. The advertisement copies have already been submitted to the MoEF, CPCB, MPPCB on 22.12.2009. News paper cutting is given as Annexure XXVIII.
21.	The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry.	The additional conditions stipulated if any shall be complied with.

Advertisement of EC in News paper

Annexure – XXVIII



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Compliance status

S. No.	Condition	Status / Compliance
22.	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Accepted.
23.	Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.	Shall be done in case of alteration of conditions.
24.	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.	Agreed.
25.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Accepted.

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