BIRLA SHAKTI CEMENT
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Through: Speed Post

Ref: VC/WS/ENV/2023-24/F1 ***Date: 11.05.2023***

To
The Director-IA Division,
Ministry of Environment, Forests & Climate Change,
Indira Paryavaran Bhavan,
Jor Bagh Road, New Delhi - 110 003.

218

Respected Sir,

Sub: Submission of Half yearly All EC Compliance Report– Reg.

*****

As mentioned in the above cited subject, I am here by enclosing the detailed point wise report of All EC conditions as per your requirement we have made a "Excel spread sheet" for the period **(October-*22 to March-23) 2nd Half.***

EC-PLANT AND MINES

S.No	EC Number and Date	No of Pages
	Plant	
1	No. J-11011/11/95- IA.II Dt. September 6th, 1995	02
2	No. J-11011/22/2005-IA.II Dt. May 9th, 2005	05
3	No. J-11011/383/2006-IA.II(I) Dt. May 16th, 2007	08
	Plant & Mines	
4	No. J-11011/1044/2007-IA-II(I) Dated 20th Jan, 2010	10
	Mines	
5	No. J-11015/98/2004-IA.II(M) Dt. 28th March 2005	05
6	No. J-11015/328/2006-IA.I(M) Dt. April 4, 2007	05

Kindly find the enclosed details for your perusals.
Thanking You,
Yours faithfully,
For Vasavadatta Cement,
For Kesoram Inds. Ltd.,
CIN of KIL- L17119WB1919PLC003429

(U.Venkatpati Raju)
Chief Manufacturing Officer

Kesoram Industries Limited
Cement Division
Unit : Vasavadatta Cement Works : Post. Sedam - 585 222.
Tq. Sedam, Dist. Kalaburagi, Karnataka
P + 08441 - 276005 / 276391
Corporate Office :
E : corporate@kesoram.net
Registered Office : Birla Building, 8th Floor, 9/1, R.N. Mukherjee Road, Kolkata-700 001,
CIN - L17119WB1919PLC003429

→ o/c Environment Dept.

Cc:

1. The Additional Principal Chief Conservator of Forests (C),
   Ministry of Environment, Forests & Climate change,
   4th Floor, E & F Wing, Kendriya Sedan,
   Koramangala, Bangalore - 560 034. — 219

2. Secretary to Government,
   Department of Ecology & Environment,
   Government of Karnataka,
   7th floor, Multistoried Building,
   Bangalore 560001. — 220

3. Chairman,
   Central Pollution Control Board,
   Parivesh Bhawan, CBD-cum-Office Complex,
   East Arjun Nagar,
   New Delhi – 110 032. — 221

4. The Member Secretary,
   Karnataka State Pollution Control Board,
   # 49, 4th & 5th floor,
   Parisara Bhavana,
   Church Street,
   Bangalore – 560 001. — 222

5. Environmental Officer,
   Karnataka State Pollution Control Board,
   Plot No.12/2, Sy.No.19/P,
   Mansafdar Layout, M.G.Road,
   Santraswadi Kalaburagi- 585101

Office copy ⟶ (Envi. Dept)

Office copy ⟶ (Mines. Dept)

Dispatch Copy

Ack Copy .

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HALF YEARLY COMPLIANCE REPORT FOR ENVIRONMENTAL CLEARANCES (PLANT AND MINES)

(October -2022 to March -2023) 2nd Half

S.No.	EC Number and Date
	Plant
1	No. J-11011/11/95- IA.II Dt. September 6th, 1995
2	No. J-11011/22/2005-IA.II Dt. May 9th, 2005
3	No. J-11011/383/2006-IA.II(I) Dt. May 16th, 2007
	Plant & Mines
4	No. J-11011/1044/2007-IA-II(I) Dated 20th Jan, 2010
	Mines
5	No. J-11015/98/2004-IA.II(M) Dt. 28th March 2005
6	No. J-11015/328/2006-IA.I(M) Dt. April 4, 2007

Kesoram Industries Ltd. – Cement Division
Unit: Vasavadatta Cement
Post: Sedam - 585222
Dist: Kalaburagi
Karnataka

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DETAILS FOR CORRESPONDENCE

1.	Name & Address of concerned person	U.Venkatpati Raju Chief Manufacturing Officer M/s. Vasavadatta Cement (Prop: Kesoram Industries Ltd.) Sedam, Kalaburagi District Karnataka – 585 222
	STD Code, Phone No.	08441 – 276006
	Fax No.	08441 – 276139
	E-Mail Address	uv.raju@kesoram.com
	Company Website	https://www.birlashakticement.com
Environment Management Cell		
2	Name & Address of concerned person	Mr.Shambuling.V.Patil HOD-Environment Dept.
	STD Code, Telephone no.	08441 – 276006 Extn: 481
	E-Mail Address	vc.environment@kesoram.com
3	Name of the person	Mr.Sandesh.yargol Asst.Officer
	Telephone no.	08441 – 276006 Extn: 481

GPS LOCATION OF VASAVADATTA CEMENT

PLANT	
Latitude	**17° 05' - 17° 15' N**
Longitude	**77° 15' - 77° 20' E**
MINES	
Latitude	**17° 03' - 17° 15' N**
Longitude	**77° 08' - 77° 20' E**

M/s.VASAVADATTA CEMENT		
Point Wise Compliance Report to Ministry Of Environment and Forests		
Vide MoEF EC No: J-11011/11/95-IA.II (I) Dt. September 6th 1995		
S.No	**Conditions**	**Compliance statement**
i.	The project authority must strictly adhere to the stipulations made by the State Government and Karnataka State Pollution Control Board.	All the stipulations laid down by State Pollution Control Board & State Govt are been strictly followed.
ii.	Any further expansion of the plant or process modifications having bearing on pollution potential can be taken up only with the prior approval of this Ministry.	For any process modifications of the plant or Expansion, approval will be taken from ministry.
iii.	The project authorities should commission a post expansion comprehensive EIA study within six months of commissioning of plant covering one year data (4 seasons) and submit the report to this Ministry within 15 months of commissioning of the study.	The EIA report has been submitted vide our letter Nos. VC /WS/ENV/CKJ/00/756C, Dt.02.03.2000 and VC / ENV/ CKJ/ 99/ 422C, Dated. 29.10.99.
iv.	The Project authorities should control fugitive emissions in the existing plant to keep them within the prescribed limits including clinker cooling section and cement packing units.	In Vasavadatta cement Concrete roads were paved at colony, Cement plant and CPP areas, 08 no's Truck mounted sweeping machines are used for good housekeeping, Bag filters are installed at Transfer points, Vaccum cleaning device is installed at Packing Plant area and Water sprinklers are installed to control fugitive emissions.
v.	Particulate emissions from various units should conform to the standards prescribed by the competent authorities or in the EPA 1986 or as will be prescribed from time to time. At no time emission of particulates from the stacks of Unit-II should exceed the limit of 50 mg/Nm^3.	Particulate emissions from various units are conforming to the standards prescribed by EPA 1986.Particulate emissions from the stacks of Unit-II are maintaining less than 30 mg/Nm3.
	A confirmation is required in this respect from the project proponent that the pollution control equipment will be designed to achieve operation efficiency of 50 mg/Nm3 in respect of emissions of dust from the various stacks.	In order to achieve operation efficiency of less than 50 mg/Nm3, Vasavadatta Cement has been carried out Conversion of ESP to Bag House in respect of particulate emissions from the various stacks, for which letter has been submitted to KSPCB Bangalore, vide our letter No. VC /WS/ENV/CKJ/F27A (ENV), Dated. 01.03.2014. Also additional measures has been taken for reduction in dust emission levels less than 30 mg/Nm3 by replaced the existing RABH bags with fibre glass acid resistance with membrane lamination bags to maintain the emission levels as per MoEF & CC norms Vide GSR 496(E) & 497 (E) dated 09/05/2016 & 10/05/2016 respectively.

<table>
<tr><td></td><td>Interlocking arrangement should be provided so that in the event of non-functioning of the pollution control equipment (s), the main plant gets automatically shut down. Also in the event of failure of any pollution control system adopted by the unit, the respective unit should be put out of operation immediately and should not be restarted until the control systems are rectified to achieve the desired efficiency.</td><td>Interlocking arrangement is incorporated in all the units.Power arrangement is made to all pollution control equipment from our Captive power plant to facilitate uninterrupted operation.</td></tr>
<tr><td>vi.</td><td>The project authority should not change any design of stacks without the permission of the State Pollution Control Board.</td><td>Yes, There will be no changes made in the design of stack without the permission of the State Pollution Control Board.</td></tr>
<tr><td>vii.</td><td>At least three air quality monitoring stations for measuring of particulate matters should be set up in the down wind direction, as well as where maximum ground level concentration is anticipated, in consultation with State Pollution Control Board.</td><td>Five Air Quality Monitoring stations are installed in consultation with KSPCB and monitored data of these stations are submitted to the State Pollution Control board on monthly basis and half yearly reports are being submitted regularly to The Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore, the latest report submitted, Vide our letter no VC/WS/ENV/22-23/87-D/F-81 Dated: 07.04.2023
The Min, Max & Avg. Values of PM10,PM2.5,SO2 & NOx for the period October '2022 to March '2023 is as follows:-
<table>
<tr><td></td><td colspan="3">PM_{10} in $\mu g/m^3$</td><td colspan="3">$PM_{2.5}$ $\mu g/m^3$</td><td colspan="3">SO_2 $\mu g/m^3$</td><td colspan="3">NOx $\mu g/m^3$</td></tr>
<tr><td>Location</td><td>Min</td><td>Max</td><td>Avg</td><td>Min</td><td>Max</td><td>Avg</td><td>Min</td><td>Max</td><td>Avg</td><td>Min</td><td>Max</td><td>Avg</td></tr>
<tr><td>Mines office</td><td>67</td><td>87</td><td>80</td><td>31</td><td>63</td><td>50</td><td>7</td><td>15</td><td>11</td><td>10</td><td>16</td><td>13</td></tr>
<tr><td>Power Plant</td><td>65</td><td>85</td><td>79</td><td>31</td><td>63</td><td>50</td><td>7</td><td>15</td><td>12</td><td>8</td><td>16</td><td>12</td></tr>
<tr><td>Staff Club</td><td>67</td><td>83</td><td>78</td><td>31</td><td>61</td><td>49</td><td>8</td><td>15</td><td>12</td><td>9</td><td>16</td><td>12</td></tr>
<tr><td>Dairy Farm</td><td>67</td><td>85</td><td>79</td><td>29</td><td>62</td><td>49</td><td>7</td><td>15</td><td>12</td><td>9</td><td>16</td><td>12</td></tr>
<tr><td>Lions Bhavan</td><td>63</td><td>84</td><td>78</td><td>28</td><td>61</td><td>48</td><td>8</td><td>15</td><td>11</td><td>9</td><td>16</td><td>12</td></tr>
</table>
<table>
<tr><td rowspan="2">National Ambient Air Quality Standards – 2009 Industrial/Residential/Rural or other areas (24 hourly average in $\mu g/m^3$) for PM10, PM2.5, SO_2, NO_x</td><td>PM_{10}</td><td colspan="2">$PM_{2.5}$</td><td>SO_2</td><td>NO_x</td></tr>
<tr><td>100</td><td colspan="2">60</td><td>80</td><td>80</td></tr>
</table></td></tr>
<tr><td></td><td>Also Stack emission should be monitored by setting up automatic stack monitoring unit.</td><td>Continuous Emission monitoring systems are installed to all major stacks in Vasavadatta Cement. Online Stack Emission data is being transferred regularly to CPCB server and SPCB server.</td></tr>
<tr><td></td><td>Air quality and stack emissions should be monitored regularly.</td><td>Air quality and stack emissions are being monitored regularly and reports are being submitted to KSPCB regularly</td></tr>
</table>

	Fugitive emissions of particulate matters should be monitored regularly. The data collected should be statistically analyzed, interpreted and submitted to the State Pollution Control Board once in three months and this Ministry once in every six months.	Emission of particulate matter is monitored regularly and the data collected is submitted to the State Pollution Control Board and Ministry. Latest submitted report vide our letter no VC/WS/ENV/2022-23/87-D/F-81 dated: 07.04.2023. In Vasavadatta cement Concrete roads were paved at colony, Cement plant and CPP areas, 08 no's Truck mounted sweeping machines are used for good housekeeping, 23 Bag filters are installed at Transfer points, Vaccum cleaning device is installed at Packing Plant area and Water sprinklers are installed to control fugitive emissions.
viii	Noise levels in the working Environment should not exceed the limit of 85 dB (A) on 8 hourly exposure basis.	Noise levels in the working zone at various locations are below 85 dB (A).Noise generating sources like Blowers and Compressors have been segregated and housed in secluded buildings. We have selected screw compressors with acoustic enclosure. In CPP all turbines are provided with Acoustic enclosures. Noise levels of Motors are reduced by replacing with FRP blades, in place of aluminium blades.
ix.	A green belt of adequate width and density should be developed all around the plant on scientific basis using native plant species in consultation with the local DFO. About 1500-2000 plants per ha. Of land should be raised in the proposed green belt.	An adequate Green Belt is being developed scientifically in a phase wise manner. The following native species are being used for plantation:- Neem, Tulsi, Marva, Lemon Grass, Lentana Hedge, Peltophoram, Pongamia, Cassia Sp, Banyan, Pipal, , D. Sisso & Teak. The Details of Tree Plantation in Vasavadatta Cement Colony, Factory and Mines area from 2009-10 to 2022-2023 as on March-2023 are as follows:

Year	Colony	Factory	Mines	Total
2009-10	2500	1000	5500	9000
2010-11	2400	1490	6565	10455
2011-12	3060	3115	3140	9315
2012-13	2055	2135	2075	6265
2013-14	2914	6577	24027	33518
2014-15	1865	544	4516	6925
2015-16	1973	6380	4224	12577
2016-17	9856	9090	6994	25940
2017-18	9983	11262	4075	25320
2018-19	5204	5317	2977	13498
2019-20	3404	3329	1995	8728
2020-21	220	290	2340	2850
2021-22	1110	520	3260	4890
2022 23	2470	279	2380	5129

x.	Environmental lab should be established with adequate number and type of pollution monitoring (ambient and stack) and analysis equipment in consultation with the State Pollution Control Board.	The Environmental Lab is equipped with 3 nos. of Stack Monitoring kits (Vayubodhan Stack Kit), 5 No. of AAQ equipments (Envirotech APM 550 to monitor PM_{10},$PM_{2.5}$,SO_2 & NO_x), 3 No's Personal sampler, Noise level meter, B.O.D, incubator, DO meter, Spectrophotometer, along with all necessary chemicals and glass wares.
xi.	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided adequate training and information on necessary safety and healthy aspects.	Personnel Protective Equipment is provided to all workers working in the dusty areas and training is given on necessary safety and healthy aspects.
xii.	Occupational health surveillance programme of the workers should be undertaken periodically to observe any contraction of respiratory diseases amongst the workers due to exposure to dust.	The Occupational Health Centre is fully equipped with 3 No's **Ambulances 1 is with equipped with Advance Life Support and other 2 are with normal with O2 support and life support drugs,we have back support Ozygen cyliders, Oxygen concentrator,Pharmacy, General ward with Day Care, Clinical Labrotary, ECG, Spirometroy, Audiometry, Pulse oximeters Nebulizer, Digital X-Ray Machine 300 MA, Vision Test is outsource by opthamology.** (Following health checkups are being carried out at our OHC centre periodically for staff & workers, Lung function test & Sputum analysis is being done.)
xiii.	A separate environmental management cell with suitably qualified personnel to carryout various functions should be set up under the control of senior executive who will report directly to head of the organization.	Environment cell is provided with well qualified Engineers holding P.G in Environment to carryout various activities like Stack Emission Monitoring, Ambient Air Quality monitoring, Noise monitoring at plant boundaries and machineries , Report preparation and Compliances etc,. The Environment Cell is set up under senior Executive of Head-Environment who is reporting directly to Chief Manufacturing Officer .
xiv.	The funds earmarked for environmental protection measures should not be diverted for other purposes and year-wise expenditure should be reported to this Ministry.	The funds earmarked & year-wise expenditure reports for environmental protection measures for the financial year 2021-22 is submitting regularly to MoEF, the latest report submitted Vide our letter no.VC /WS/MINE/UVR/66-B/2022-23 dated 20.06.2022 and funds are not diverted for any other purposes.
xv.	The regional office of this Ministry located at Bangalore will monitor the implementation of the above conditions. Necessary facilities for undertaking for monitoring work may be provided to the staff of the Regional office.	Vasavadatta Cement will provide the necessary facilities to the staff of the Regional office or for the authorities who will undertake monitoring.
2	The Ministry or any other competent authority may stipulate any further condition(s) after reviewing the environmental monitoring reports etc.	All the stipulations made by Ministry or any other competent Authorities for further conditions are strictly followed after reviewing the environmental monitoring reports.
3	The above conditions will 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	Vasavadatta Cement will implement the above said conditions 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.

M/s.VASAVADATTA CEMENT		
Point Wise Compliance Report to Ministry Of Environment and Forests		
Vide MoEF EC No: J-11011/22/2005-IA.II Dt. May 9th 2005		
S.No	**Conditions**	**Compliance statement**
	Specific condications	
i.	The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the State Pollution Control Board. At no time the particulate emissions should exceed 50 mg/Nm^3. Further, the Company may also take appropriate additional measures to improve the design and operating practices of the pollution control equipment Trappings in kiln ESP shall be minimized. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective units are shut down automatically.	The gaseous and Particulate matter emissions from various units are meeting the standards prescribed by the State Pollution Control Board. Additional measures have been taken to control of particulate matter by replaced the existing RABH bags with fibre glass acid resistance with membrane lamination bags to maintain the emission levels less than 30mg /Nm3. Interlocking arrangement has been incorporated in all the units. We have replaced ESP'S with Bag houses for Kiln to avoid ESP tripping.

ii.

Ambient Air Quality including ambient noise levels must not exceed the standards stipulated under EPA/State authorities. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with SPCB and report submitted to the Board quarterly and to the Ministry (Regional Office at Bangalore) half yearly. Automatic stack monitoring system shall be installed in the major stacks of the plant.

Monitoring of AAQ and stack emissions are being carried out as per the SPCB guidelines & monthly reports are being submitted to SPCB, half yearly reports are being submitted regularly to The Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore, the latest report submitted Vide our letter no VC/WS/ENV/22-23/87-d/F-81 dated: 07.04.2023. The Min, Max & Avg. Values of PM10,PM2.5,SO2 and NOx for the period October'2022 to March'2023 is as follows:-

Location	PM_{10} in µg/m³			$PM_{2.5}$ µg/m³			SO_2 µg/m³			NOx µg/m³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Mines office	67	87	80	31	63	50	7	15	11	10	16	13
Power Plant	65	85	79	31	63	50	7	15	12	8	16	12
Staff Club	67	83	78	31	61	49	8	15	12	9	16	12
Dairy Farm	67	85	79	29	62	49	7	15	12	9	16	12
Lions Bhavan	63	84	78	28	61	48	8	15	11	9	16	12

National Ambient Air Quality Standards – 2009 Industrial/Residential/Rural or other areas(24 hourly average in µg/m³) for PM10, PM2.5, SO_2, NO_X	PM_{10}	$PM_{2.5}$	SO2	NO_x
	100	60	80	80

The Ambient Noise levels at Plant Boundaries for the Month of February -2023 are :-

Zone	Monitoring Location	Lday (6.00 AM to 10.00 PM)	Limit	Lnight (10.00 PM to 06.00 AM)	Limit
Industrial Zone dB(A)	Kamalavathi river (E)	63.1	75	52.6	70
	Lorry yard gate-02 (W)	68.2		54.1	
	Power plant (N)	63.9		51.9	
	STP area (S)	58.2		48.8	
	Towards Mines (NE)	63.8		53.8	

<table>
<tr><td>iii.</td><td>The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points. Company shall provide bag filter at all dry material conveyor and transfer points. The dust collected from the pollution control equipment shall be recycled back into the process. Storage of raw material shall be in closed roof sheds. Water sprinkling arrangement shall be made in the raw material stock yard and cement bag loading areas.</td><td>Bag Filters are installed to control fugitive dust emissions at various transfer points. The dust collected from Pollution Control Equipment is recycled back into process at appropriate stages.
1. Raw materials are stored under Covered Sheds.
2. Water sprinkling arrangement is made at the following locations.
i. L.S.Crusher Hopper.
ii. L.S.Crusher BC-2 and BC-4 discharge end (Lime Stone Conveying Belts)
iii. Wagon Tippler Hopper in Coal Handling System during loading and unloading of wagons
3. Water sprinkling on blasted heaps and on haul roads is used to reduce dust.</td></tr>
<tr><td>iv.</td><td>The coal storage area shall be covered and water spraying arrangements shall be made to control the fugitive dust emissions.</td><td>Coal is stored under covered shed,water sprinkiling system is provided at wagon tippler area during unloading of coal to controal fugitive dust emissions. Latest two nos of M/S NIVIS,ITALY Dust Suppression System are procurred One is used at cement plant at unloading of raw materials like coal and the other one is latest mounted system,used at limestone mines.These equipments are based on Water Mist Technology used to controal fugitive emission away from 25 to 50 m during loading and unloading.</td></tr>
<tr><td>v.</td><td>The company shall install bag filters to control the emissions from the coal grinding units. Further, emissions from the stack of CPP shall be controlled by installation of ESP. The outlet concentration of particulates shall not exceed 50 mg/Nm^3.</td><td>Bag filters are provided In all the coal grinding units. Electrostatic Precipitators (ESP's) with three phase transformers are installed at all the stacks of CPP. The Outlet concentrations of particulates are below 50 mg/Nm^3. The Min, Max & Avg Values for the period October -2022 to March-2023 is as follows:-
<table>
<tr><td>Unit</td><td>Min(mg/Nm^3)</td><td>Max(mg/Nm^3)</td><td>Avg(mg/Nm^3)</td></tr>
<tr><td>CPP-I</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>CPP-II</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>CPP-III</td><td>15</td><td>27</td><td>23</td></tr>
<tr><td>CPP-IV</td><td>19</td><td>25</td><td>22</td></tr>
<tr><td>CPP-V</td><td>18</td><td>30</td><td>24</td></tr>
<tr><td>Limit</td><td colspan="3">50 mg/Nm^3 as per MoEF & CC notification S.O 3305(E) dated 7th Dec 2015</td></tr>
</table></td></tr>
<tr><td>vi.</td><td>The company shall use fly ash up to 35% from the proposed captive power plant for manufacturing of Portland pozzolana.</td><td>Vasavadatta Cement is utilizing Fly ash as per BIS Standards, 100% Fly ash generated at Captive Power Plant is used for manufacturing of Portland Pozzolana cement.</td></tr>
</table>

vii.	No discharge of treated effluent shall be done outside the premises and all the treated effluent shall be utilized for green belt development and other plant related activities.	No treated effluent is discharged outside the plant premises, we are maintaining Zero Liquid discharge and the total treated water is used for Greenbelt development at colony, Plant and Mines.
viii	As per charter on Corporate Responsibility for Environmental Protection in respect of cement industries, the company shall reduce CO_2 emission to 0.75 tonne/tonne of cement production. Action plan in this regard shall be submitted to the Ministry.	The company has taken all the necessary steps to reduce CO_2 emission to its possible extent.
ix.	The company shall develop green belt in an area of 5.25 ha in addition to 92.46 ha already brought under the green belt development. Central Pollution Control Board guidelines must be followed in planning and developing green belt and selection of species etc.	As per Central Pollution Control Board guidelines Vasavadatta Cement is developing Green Belt accordingly by following the guidelines & selecting the species. The Total trees planted in M/s.Vasavadatta Cement from April' 1983 to March' 2023 are 6,08,105, out of which 3,49,913 trees are survived with a Survival rate of 58 %.
x.	The company must harvest the rainwater from the rooftops and storm water drains to recharge the ground water.	Rain water collected from the roof top and surface runoff is diverted by drains to the rain water harvesting pit at power plant. At mines, Sump is developed in to Mines pit, for storage of rain water in order to use the stored water during lean period. Garland drains are cut around the quarry channelizing the rainwater from the catchment area with capacity of 40 Lakh m^3.

B. General Conditions

i	The project authority must adhere to the stipulations made by Karnataka State Pollution Control Board and State Government.	Noted & will be complied. All the stipulations laid down by State Pollution Control Board & State Govt are been strictly followed.
ii	No further expansion or modification the plant should be carried out without prior approval of this Ministry.	No further Expansion or modification shall be carried out without prior approval of the Ministry.
iii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO2, and NOx are anticipated in consultation with the Karnataka State Pollution Control Board. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.	Five ambient air quality monitoring stations are installed in consultation with KSPCB. Ambient Air Quality monitoring is being done regularly and the data of Ambient Air Quality & Stack emission is being submitted to concerned State Pollution Control Board and Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore, once in every six months the latest report submitted, Vide our letter no VC/WS/ENV/21-22/87-D/ F-81 dated: 07.04.2023. The Min, Max & Avg. Values of PM10,PM2.5,SO2 & NOx for the period October '2022 to March'2023 is as follows:-

Location	PM_{10} in µg/m³			$PM_{2.5}$ µg/m³			SO_2 µg/m³			NOx µg/m³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Mines office	67	87	80	31	63	50	7	15	11	10	16	13
Power Plant	65	85	79	31	63	50	7	15	12	8	16	12
Staff Club	67	83	78	31	61	49	8	15	12	9	16	12
Dairy Farm	67	85	79	29	62	49	7	15	12	9	16	12
Lions Bhavan	63	84	78	28	61	48	8	15	11	9	16	12

National Ambient Air Quality Standards – 2009 Industrial/Residential/Rural or other areas (24 hourly average in µg/m³) for PM10, PM2.5, SO_2, NO_x	PM_{10}	$PM_{2.5}$	NOx	SO_2
	100	60	80	80

<table>
<tr>
<td>iv</td>
<td>Industrial wastewater should 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. The treated wastewater should be utilized for plantation purpose.</td>
<td>Presently, the treated wastewater from power plant is utilized for plantation The wastewater is being properly collected & treated as per GSR 422 (E) standards & Cement manufacturing process. The analysis values for the particulars of industrial wastewater samples from ETP outlet for the month of February -2023 is tabulated below.
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</td>
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<td>v</td>
<td>The overall noise levels in and around the plant area should be kept well within the standards 85 dB (A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz.75 dB(A) (day time) and 70 dB(A) (night time).</td>
<td>Ambient noise levels in and around the plant area are within the prescribed standards under Environmental (Protection) Act.Noise generating sources like Blowers and Compressors have been segregated and housed in secluded buildings. We have selected screw compressors with acoustic enclosure. In CPP all turbines are provided with Acoustic enclosures. Noise levels of Motors are reduced by changing Air cooling fans & Shell cooling fans aluminium blades are replaced by FRP blades.Noise level monitoring for the Month of February-2023 is as follows:-
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<tr><td></td><td>Kamalavathi river (E)</td><td>63.1</td><td></td><td>52.6</td><td></td></tr>
</table>
</td>
</tr>
</table>

vi	Proper housekeeping and adequate occupational health programmes must be taken up. Occupational Health Surveillance programme should be done on a regular basis and records maintained. The programme must include lung function and sputum analysis tests once in six months	Two TPS 3D machines & Six truck mounted system are operated for road sweeping in plant and colony. Apart from this manually operated floor sweeping machines are in operation in order to maintain good housekeeping. The Occupational Health Centre is fully equipped with 3 No's Ambulances 1 is with equipped with Advance Life Support and other 2 are with normal with O2 support and life support drugs,we have back support Ozygen cyliders, Oxygen concentrator,Pharmacy, General ward with Day Care, Clinical Labrotary, ECG, Spirometroy, Audiometry, Pulse oximeters Nebulizer, Digital X-Ray Machine 300 MA, Vision Test is outsource by opthamology. Following health checkups are being carried out at our OHC centre periodically for staff & workers, Lung function test & Sputum analysis is being done.
vii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the Environmental Impact Assessment/ Environmental Management Plan.	Vasavadatta Cement is complying & safeguarding all the environmental protection measures recommended in the Environmental Impact Assessment/ Environmental Management Plan.
viii	A separate environmental management cell with full-fledged laboratory facilities to carry out various management and monitoring functions should be set up under the control of Senior Executive.	Environment cell is provided with well qualified Engineers holding P.G Degree in Environment to carryout various activities like stack emission monitoring, Ambient air quality monitoring, Noise monitoring at plant boundaries and machineries , Report preparation and Compliances etc.,. The Environment Cell is set up under senior Executive of Head-Environment who is reporting directly to Chief Manufacturing Officer
ix	The project authorities will provide separate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	Vasavadatta Cement has provided separate funds for both recurring and non-recurring in order to implement the conditions stipulated by the Ministry of Environment and Forests and in any condition the fund will not be diverted for any other purposes.
x	The Regional Office of this Ministry at Bangalore / Central Pollution Control Board/ State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along the statistical interpretation should be submitted to them regularly.	A six monthly compliance report and the monitored data along the statistical interpretation are being submitted to The Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore, KSPCB Bangalore & R.O Kalaburagi. The last submitted report of all EC compliance vide our letter no. VC/WS/ENV/2022-23/F1 dated 18.10.2022 for the period April -22 to September-22. The recent statistical interpretation is submitted Vide our letter no VC/WS/ENV/22-23/87-D/F-81 dated: 07.04.2023.

		Industrial Zone dB(A)	Lorry yard gate-02 (W)	68.2	75	54.1	70	
			Power plant (N)	63.9		51.9		
			STP area (S)	58.2		48.8		
			Towards Mines (NE)	63.8		53.8		

xi	The Project Authorities should 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.	Vasavadatta Cement will inform the date of financial closure & date of commencing the land development work to Regional Office as well as the Ministry.
xii	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of MoEF at http//envfor.nic.in. This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the R. O.	Vasavadatta Cement has informed the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. After issuance of the clearance, Clearance letter has been published in two local newspapers in the vernacular language. 1) Deccan Herald 2) Prajavani and the copies of the same have been forwarded to the R. O.

3	The Ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions will be monitored by the Regional Office of this Ministry located at Bangalore.	Vasavadatta Cement will abide the stipulations made by Ministry / competent Authority on receiving reports. The above conditions can be monitored by the Regional Office of this Ministry located at Bangalore.
4	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Vasavadatta Cement has implemented and fulfilled all the conditions mentioned above satisfactorily.
5	Any other conditions or alteration in the above conditions will have to be implemented by the project authorities in a time bound.	Vasavadatta Cement will implement the above conditions / alterations in a time bound manner.
6	The above conditions will 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	Vasavadatta Cement will implement the above said conditions 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.

M/s.VASAVADATTA CEMENT		
Point Wise Compliance Report to Ministry Of Environment and Forests		
Vide MoEF EC No: J-11011/383/2006-IA.II (I) Dt.16th May, 2007		
S.No	Conditions	Compliance statement
A.Specific Conditions		
i.	The gaseous emissions from various units shall conform to the standards prescribed by the concerned State Pollution Control Board (SPCB) or by the Ministry, whichever is stringent. Bag filter system shall be provided for flue gas instead of conditioning towers. SPM emission from all the stacks, including CPP will be <50 mg/m^3. The CPP will be based on AFBC technology and will preferably have Air Cooled Condenser System for cooling of water for CPP.	The gaseous and Particulate matter emissions from various units are meeting the standards prescribed by the State Pollution Control Board. Bag filter system is incorporated for flue gas at all kiln stacks instead of gas conditioning towers and the SPM emission from all the stacks, including CPP will be <50 mg/Nm3. Air cooled condensers are installed at CPP in for cooling of water.
ii.	The unit shall use the high calorific hazardous waste in their kiln. The relevant designed factors shall be incorporated at the inception stage itself.	Vasavadatta Cement is using high calorific hazardous waste in its kiln. The relevant design factors are incorporated at its inception stage itself by installing Burner pipe which is capable of handling alternative fuels.
iii.	The predicted values for SO_2 seems low and will further decrease if the actual sulphur content of 0.4 to 0.5 % is considered. These may be rechecked and submitted to the Ministry with in fifteen days of issue of this letter.	We are using low sulphur content fuels to reduce so_2 emissions.
iv.	The height of stack with Unit-IV AFBC will be 88 m, of raw mill, 90 m, of coal mill 100 m, while other stacks will be 30-40 m and CPP, it will be 110 m. Bag house will be installed at all other emission points except the cooler exhaust.	The heights of the stacks are provided as per the standards, Bag houses are installed at all other emission points except the cooler exhaust.

	Bag filters will be provided at all material handling and transfer locations. Low NOx burners shall be installed to control NOx emissions and lime injection shall be carried out to reduce SO_2 emissions if required.	Bag filters are provided at all material handling and transfer locations. Low NOx burner is installed to control NOx emissions and lime injection will be carried out to reduce SO2 emissions if required.
v	Continuous on-line monitors for particulate emissions, SO_2 and NOx in Raw Mill / Kiln, clinker cooler, coal mill, cement mill etc. shall be provided and shall make necessary arrangements for submission of on-line real time emission data to CPCB website. Interlocking facility shall be provided between pollution control equipment and the process operation so that in the event of the pollution control equipment not working if the respective unit (s) is shut down automatically.	Continuous Online Emission monitoring systems are provided for all the major stacks of cement plant and Captive Power plant for monitoring Particulate Emissions, SO2 and NOx. The on-line real time emission data is also being transferred continuously to CPCB, New Delhi and ready to get connected to KSPCB, server from our end. Interlocking facility has been provided between pollution control equipment and the process operation.

<table>
<tr>
<td>vi</td>
<td>Regular Ambient Air Quality Monitoring shall be carried out. The location of the monitoring stations will be reviewed in consultation with the State Pollution Control Board and additional stations will be installed, if required. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. On-line data for air emissions shall be transferred to the CPCB and APPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated regularly.</td>
<td>
Vasavadatta Cement has installed 5 Nos. AAQ stations in consultation with KSPCB and is being monitored regularly and the data collected is being submitted monthly to the Board.
We have installed online AAQ station one at upwind direction and other one at downwind direction. As per law, emission details are displayed for public domain at plant main gate.
The Min, Max & Avg. Values of PM10,PM2.5,SO2 & NOx for the period October'2022 to March'2023 is as follows -
<table>
<tr><th rowspan="2">Location</th><th colspan="3">PM_{10} in $\mu g/m^3$</th><th colspan="3">$PM_{2.5}$ $\mu g/m^3$</th><th colspan="3">SO_2 $\mu g/m^3$</th><th colspan="2">NOx $\mu g/m^3$</th></tr>
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</table>
<table>
<tr><td rowspan="2">National Ambient Air Quality Standards – 2009 Industrial/Residential/Rural or other areas (24 hourly average in $\mu g/m^3$) for PM10, PM2.5, SO_2, NO_X</td><td>PM_{10}</td><td>$PM_{2.5}$</td><td>SO_2</td></tr>
<tr><td>100</td><td>60</td><td>80</td></tr>
</table>
Online Ambient Air Quality data is being transferred regularly to CPCB and is ready to get connected from our end to KSPCB server. The instruments used for Ambient Air Quality monitoring are calibrated regularly
</td>
</tr>
<tr>
<td>vii</td>
<td>Fugitive emission shall be < 500 mg/m^3. Bag filters shall be provided for all stacks except CPP Boiler and Cooler where ESP shall be provided. The regular monitoring of fugitive emission shall be carried out by the unit as per the CPCB guidelines.</td>
<td>Regular Monitoring of fugitive dust emissions are being carried out as per the CPCB guidelines.
Bag filters are provided for all the stacks of Cement plant except Cooler and CPP Boiler, where ESP is provided, In order to maintain fugitive dust emission levels < 500 mg/m3</td>
</tr>
<tr>
<td>viii</td>
<td>Raw material will be stored in covered yards and clinker in Silos / covered tanks to control fugitive emissions. Fugitive emissions from cement mill, packing area and coal yard also are controlled.</td>
<td>Covered sheds are provided for raw materials like limestone, Coal, Laterite / Bauxite yards and clinker is stored in silos in order to control fugitive emissions. Bag filters and water sprinklers are provided to control fugitive emissions.</td>
</tr>
</table>

ix	Vacuum dust cleaning system will be provided to evacuate dust on floors. All roads will be swept with sweeping machines. Material will be transported in tippers, covered trucks, covered containers, covered rail wagons etc. Dust collectors and extraction system (suction apparatus) shall be installed to control fugitive dust emissions at coal and limestone unloading points, at all the transfer points, stockpiles to arrest free release of dust.	Two TPS 3D machines & Six truck mounted system are operated daily for road sweeping in plant and colony. Apart from this manually operated floor sweeping machines are in operation for good housekeeping. Suction apparatus is being equipped for Packing plant for control of fugitive dust Bag filters are installed at various places like transfer points, stockpiles in order to control the fugitive emissions.

x	Windbreakers will be installed to restrict fugitive dust.	Plantation has been done on the Soil dumped area, near power plant in order to act as windbreaker.
xi	Water sprinkling arrangement should be made in the raw material stock yard and suction system for cement bag loading areas. Regular water sprinkling shall be carried out at all areas where fugitive dust can be generated.	Latest two no's of M/s NIVIS, ITALY Dust Suppression System are procured. One is used at cement plant in order to minimize the fugitive emissions during unloading of raw materials like coal etc and the Other one is latest truck mounted system which is used at limestone mines. These equipment's are based on Water Mist Technology used to control fugitive emission away from 25 to 50 meters during loading and unloading, water sprinkling system is provided to suppress the dust emissions at required areas. At cement bag loading area, Vaccum cleaning device is used to collect the dust from the packed bag tops.
xii	The proposed cooling system for CPP may be decided and submitted along with a detailed water balance resubmitted.	Air cooled condenser system for CPP is adopted in addition to water cooled condenser. Now CPP can run on any one of the system.
xiii	Acoustic enclosures will be provided at all high noise equipment and place to limit the noise levels below 85 dB (A).	Acoustic enclosures are provided at various locations to control high noise levels below 85 dB (A).
xiv	Copy of water withdrawal permission from the authority shall be submitted before starting the project.	Vasavadatta Cement has submitted a copy of Kagina water withdrawal permission letter obtained from Minor Irrigation department, vide letter no.No: KNNL/TAMSA-1/SA.EM-6/Vasavadatta Cement-71/2020-21 dated 22-09-2020.
xv	Note on source wise water withdrawal and status of permissions on this account is needed.	Vasavadatta Cement is permitted to draw water for 238 days in a year from Kagina River at the rate of 17 Lakh gallons per day. Permission letter no.No: KNNL/TAMSA-1/SA.EM-6/Vasavadatta Cement-71/2020-21 dated 22-09-2020.

xvi	Water requirement will not exceed from 10,869 m^3/d. No wastewater will be generated in cement manufacture. The wastewater from CPP and domestic activities shall be treated in Effluent Treatment Plant (ETP) and Sewage Water Reclamation Plant (SWRP) respectively and recycled/reused in cement plant for make-up, in CPP for cooling, dust suppression, other plant related activities and green belt development. No waste water will be released outside the premises. "Zero" discharge shall be strictly adopted. During monsoon, the waste water will be stored in the mine pit. Separate storm water drains will be provided and storm water from CPP area will be stored in a settling tank before discharging into the nala.	The water requirement is not exceeding from 10,869 m^3/d . "Zero discharge" is strictly adopted. There is no discharge of treated effluent outside the plant premises and all the treated effluent is used for gardening and dust suppression in Plant, colony and Mines. During monsoon, the wastewater is being stored in the mines pit. Storm water drains are already provided at CPP area to collect Rain water and stored at RWH pit.
xvii	Solid waste generated shall be 100 % recycled and reutilized in the process and no solid waste shall be disposed off outside the plant premises. The solid waste will be dumped in the low lying areas and the area thus filled up /reclaimed shall be used for tree plantation.	Vasavadatta Cement has generated 55,689 MT of Fly ash from its Captive Power Plant, from which 100 % is utilized for the production of Portland Pozzolana Cement, during the period October-22 to March-23.

xviii	Vermi Composting shall be adopted for disposing of bio-degradable waste from the domestic sources.	Noted and Complied.
xix	0.226 MMTPA of fly ash generated from CPP will be transported pneumatically to the cement plant fly ash silos and shall be 100% utilized in Portland Pozzolana Cement production. Bottom ash shall also be used in cement plant or used for land filling. Treated STP sludge shall be used as manure for green belt development. Waste oil sludge shall be reused in the plant and finally burnt in the kiln or sold to authorized recyclers / re-processors.	1. Fly ash generated from CPP is transported pneumatically to cement plant from fly ash silo and is utilized 100 % in PPC production, Bottom ash is also being used in cement plant. Treated STP sludge is being used as manure for green belt development. 2. Waste oil sludge is reused in the plant & burnt in Kiln/ sold to authorized recyclers / re-processors for which Vasavadatta Cement has a permission.
xx	The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	Vasavadatta Cement is strictly following the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
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. (* Non complying units shall give bank guarantee to respective SPCBs)	Vasavadatta Cement has converted the ESP's of Cement Kiln I & II (older units) to Bag Houses to meet the standards.

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.	Vasavadatta cement is maintaining the emission level of particulate matter less than 30 mg/Nm^3 and is not exceeding the limit prescribed by KSPCB.
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.	As per the CFO issued by KSPCB the limits for particulate matter emissions is 30 mg/Nm^3 but Vasavadatta cement is maintaining the emission levels less than 30 mg/Nm^3 for all our existing units. - (Unit-I, II, III & IV).
4	CPCB will evolve load based standards by Dec. 2003.	Recently MoEF & CC has released a new notification on load based standards on 10th May 2016, for cement plants with co-processing, as per this notification, Vasavadatta Cement is taking all the necessary measures to maintain the particulate matter emission less than 0.125 Kg/tonne of Clinker.
5	CPCB & NCBM will evolve SO_2 and NOx emission standards by June 2004.	As per the notification for SO_2 and NOx standards issued by MoEF & CC for Cement Plant Vide GSR 612 (E) dated 25th August 2014 and GSR 496(E) & 497 (E) dated 09/05/2016 & 10/05/2016 and CPP Vide S.O 3305(E) dated 7th December 2015, Vasavadatta Cement has taken necessary measures & conducted a trial run by adding limestone with Coal @ different compositions for all the Captive Power Plant's in order to reduce the emission levels of SO_2. Vasavadatta Cement will carry out the project of limestone feeding with coal @ Captive Power Plant to comply with the standards for SO2.
6	The Cement industries will Control fugitive emissions from all the raw material and products storage and transfer points by Dec. 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.	To control fugitive emissions from limestone and coal storage yards, Vasavadatta cement will abide by the decision of NTF. However closed sheds are provided for limestone & coal stock piles in order to Control fugitive emissions. • Additional 23 small bag filters are installed at various transfer points for controlling fugitive emissions. 1.4 KM length of closed conveyor system is installed from mines crusher to Plant to control fugitive emission. Cement Bag cleaning device is installed at packing plant to control fugitive emission. • Concreting of 40,000 Sq.m area at lorry parking is done in order to reduce fugitive dust emissions.
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.	Noted & complied VC will abide the policy on usage of petroleum coke as fuel in cement kiln.

8	After performance evaluation of various types of continuous monitoring equipment and feedback from 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.	Vasavadatta Cement has already installed nine numbers of online continuous Monitoring systems at all major stacks and the data is connected to CPCB Server, New Delhi and connected to KSPCB server.
9	Tripping in kiln ESP to be minimized by July 2003 as per the recommendation of NTF	Vasavadatta Cement has converted the ESP's to Bag Houses for the older units of Unit-I & II Cement Kilns, in order to eradicate tripping. If required Vasavadatta Cement will take all the necessary measures further as recommended by NTF.
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	Vasavadatta Cement has utilized 100 % of its Fly ash generated from Captive Power Plant during the period October-2022 to March-2023 for Manufacturing of Pozzolona Portland Cement. i.e., 55,689 MT. In addition to this Vasavadatta cement is utilizing fly ash from other industries like YTPS,ADANI,NTPC, PARLI, UDIPI POWER CORP,ARV,STCM,GLOBAL ENGG etc.,
11	NCBM will carry out feasibility study on hazardous waste utilization in cement kiln by December 2003.	In order to utilize hazardous waste in Cement Kiln, Vasavadatta Cement has installed Hot Disc Reactor at Unit III, which is the first cement industry in Asia to install such advance technology for co-processing of different wastes.
12	Cement industry will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003.	The consented capacity of Captive Power Plant is 79.2 MW for co-generation of power, where the generated power is utilized in Both Colony & Cement plant for manufacturing of cement. In case of any Excess generation of Power, the power is exported to KPTCL.
xxi	An additional area of 5.25 ha shall be developed as green belt.	Vasavadatta Cement is developing a green belt for an additional area of 5.25 ha in a phase wise manner
xxii	The company must harvest surface as well as rainwater from the rooftops of the buildings proposed in the expansion project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Vasavadatta Cement, as a part of water conservation measure, rainwater harvesting is being done by collecting the storm water for storage in the mines pit, in order to use the stored water during lean season & to recharge the ground water. Also RWH pits are developed near TPP to harvest rain water from colony & Plant runoff water.

xxiii	Studies on noise dosimeter and audiometry to assess the noise induced hearing loss in case of exposed employees will be carried out and appropriate ameliorative measures will be taken, wherever necessary.	Noise monitoring is done regularly. Ear plugs are provided to employees exposed to noisy areas and Half yearly audiometry & noise dosimeter test is carried out to assess the noise induced hearing loss in case of exposed employees and conservative measures for better improvement are also being taken.
B. General Conditions		
i	The project authorities must strictly adhere to the stipulations made by State Pollution Control Board (SPCB) and the State Government.	Vasavadatta Cement will adhere to the stipulations made by KSPCB & state government.
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Vasavadatta Cement will not carry any expansion or modification of the plant without prior approval of the ministry.

<table>
<tr><td>iii</td><td>Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the SPCB. Regular monitoring shall be carried out for relevant parameters.</td><td>Vasavadatta Cement is carrying out effluent quality monitoring in Consultation with the SPCB regularly for relevant parameters.</td></tr>
<tr><td>iv</td><td>The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP report.</td><td>Vasavadatta Cement is complying and safeguarding all the environmental protection measures recommended in the EIA/ EMP report.</td></tr>
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</table>

vi	The overall noise levels in and around the plant area shall be limited within the prescribed standards 85 dB(A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.	Noise generating sources like Blowers and Compressors have been segregated and housed in secluded buildings. Vasavadatta Cement has installed screw compressors with acoustic enclosure and fans with silencers for Unit-3 & 4 cement plants to reduce noise levels. Noise generating sources like Blowers and Compressors have been segregated and housed in secluded buildings. We have selected screw compressors with acoustic enclosure. In CPP all turbines are provided with Acoustic enclosures. Noise levels of Motors are reduced by changing Air cooling fans & Shell cooling fans aluminium blades are replaced by FRP blades. Noise level monitoring for the Month of February-2023 is as follows:-						
		Zone	Monitoring Location	Lday (6.00 AM to 10.00 PM)	Limit	Lnight (10.00 PM to 06.00 AM)	Limit	
		Industrial Zone dB(A)	Kamalavathi river (E)	63.1	75	52.6	70	
			Lorry yard gate-02 (W)	68.2		54.1		
			Power plant (N)	63.9		51.9		
			STP area (S)	58.2		48.8		
			Towards Mines (NE)	63.8		53.8		

vii	Proper Housekeeping and adequate occupational health programs shall be taken up. Regular Occupational Health Surveillance Programme shall be carried and records shall be maintained properly for at least 30-40 years. The programme shall include lung function and sputum tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.	Two TPS 3D machines & Six truck mounted system are operated for road sweeping in plant and colony. Apart from this manually operated floor sweeping machines are in operation in order to maintain good housekeeping. The Occupational Health Centre is fully equipped with 3 No's Ambulances 1 is with equipped with Advance Life Support and other 2 are with normal with O2 support and life support drugs,we have back support Ozygen cyliders, Oxygen concentrator,Pharmacy, General ward with Day Care, Clinical Labrotary, ECG, Spirometroy, Audiometry, Pulse oximeters Nebulizer, Digital X-Ray Machine 300 MA, Vision Test is outsource by opthamology. (Following health checkups are being carried out at our OHC centre periodically for staff & workers, Lung function test & Sputum analysis is being done.)
viii	A separate environment management cell with full fledge laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.	Environment cell is provided with well qualified Engineers holding P.G in Environment to carryout various environmental monitoring activities, stack emission monitoring, Ambient air quality monitoring, Noise monitoring at plant boundaries and machineries , Report preparation and Compliances etc.,. The Environment Cell is set up under senior Executive of Head-Environment who is reporting directly to Chief Manufacturing Officer

ix	As proposed in the EIA/EMP, Rs 28.00 Crores and Rs. 04.20 Crores/annum earmarked to meet the capital and recurring cost/annum respectively for the environmental protection measures shall be used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	The amount proposed in the EIA/EMP/annum towards earmarked funds for environmental protection measures is used judiciously to implement the conditions stipulated by State Government & Ministry of Environment and Forests. The funds so provided are not been diverted for any other purpose.
x	The concerned Regional Office of this Ministry/ State Pollution Control Board / Central Pollution Control Board shall monitor the implementation of the stipulated conditions. Six monthly compliance status report and monitoring data along with statistical interpretation shall be submitted to them regularly.	Statistical interpretation data is being submitted regularly to MoEF New Delhi & Regional office -Bangalore, The latest six months report is submitted, Vide our letter no VC/WS/ENV/22-23/87-D/F dated: 07.04.2023.

xi	The Project Proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Ministry's Regional Office at Bangalore.	Vasavadatta Cement has informed the public that the project has been accorded environmental clearance by the Ministry and copy of the clearance letter is available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in After issuance of the clearance, the letter has been published in two local newspapers in vernacular language. 1) Deccan Herald 2) Prajavani and the same have been forwarded to the Ministry's Regional Office at Bangalore.
xii	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 start of land development work.	The date of financial closure is informed to Ministry / Regional Office vide letter no VC: WS: ENV: CKJ: B82A/2007/1562 dated. July 19, 2007.
5	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Vasavadatta Cement will follow & implement all the above conditions satisfactorily.
6	The Ministry reserves the right to stipulate additional conditions if found necessary. The company will implement these conditions in a time bound manner.	Vasavadatta Cement will follow & implement the stipulated additional conditions in a time bound manner.

7	The above conditions will 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, the Public Liability Insurance Act, 1991, Hazardous Waste (Management & Handling) Rules, 1989 and Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989 along with their amendments and rules.	Vasavadatta Cement will implement the above said conditions 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, the Public Liability Insurance Act, 1991 & Hazardous Waste (Management & Handling) Rules- 2016 and Manufacture, Storage, and Import of Hazardous Chemicals Rules-2016 along with their amendments and rules.

M/s.VASAVADATTA CEMENT		
Point Wise Compliance Report to Ministry Of Environment and Forests		
Vide MoEF EC No: J-11011/1044/2007-IA.II (I) Dt.20 th Jan, 2010		
S.No	Conditions	Compliance statement
A.Specific Conditions		
I	The Company shall comply with all the stipulations mentioned in the environmental clearance letter accorded by the Ministry vide letter no J-11011/383/2006-IA-II (I) dated 16th May, 2007.	Vasavadatta Cement will comply all the stipulations mentioned in the Environment clearance letter accorded by the Ministry.
ii	The Company shall comply with the conditions stipulated in the mining plan approval letter no. issued by the Indian Bureau of Mines and mining lease accorded by the State Government.	Review of Mining Plan including progressive Mine Closure Plan for period from 2022-23 to 2026-27 pertaining to Injepalli Limestone Mine is approved from the Indian Bureau of mines Bangalore vide 279/168/90/BNG/100 dtd 27.01.2022 Along with PMCP we have submitted the bank Guarantee for Rs.11,73,80,000/- (Rupees Eleven Crores Seventy-three Lakhs Eighty Thousand Only) for period from 01.04.2012 to 31.03.2027. Towards financial assurance. As per new rule 27(1) of Mineral Conservation and Development (Amendment) rules,2021 and rules of MCDR 2017 @ of Rs.5,00,000/- per Ha.
iii	The proponent shall upload the status of compliance of the stipulated EC conditions, including monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant namely; SPM, RSPM, SO_2, NOx (Ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at the convenient location near the main gate of the Company in the public domain.	Monthly Air Emission Monitoring reports (Ambient & Stack) and All EC compliance reports are being uploaded in our Vasavadatta Cement website regularly. Vasavadatta Cement has submitted Half yearly point wise compliance report April-2022 to September-2022, vide our letter no VC/WS/ENV/2022-23/F1-219 dated 18.10.2022. Online Stack Emission & Ambient Air Quality data parameters are displayed at our Plant main gate area for public domain and the same data is being transferred regularly to CPCB Server and connected to SPCB server. The web link of Vasavadatta Cement is as provided below https://www.birlashakticement.com
iv	The Company shall install low NOx burner with Kiln/calciner for control of NOx emissions below 400 mg/Nm^3.	Noted & will be complied
v	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.	Bag filters are installed at various transfer points to control fugitive emission for existing plants (Unit – I to IV) well within the prescribed limits. Additional control equipment's as required for new unit will be provided. Guidelines / Code of Practice issued by the CPCB in this regard will be followed

vi	Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities.	Vasavadatta Cement is monitoring at Five different stations in core zone and buffer zone. The monitoring of ambient air quality is in accordance with the MoEF Notification for NAAQ Standards 2009. Monitoring of AAQ and stack emissions are being carried out as per the SPCB guidelines & monthly reports are being submitted to SPCB, half yearly reports are being submitted regularly to The Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore the latest report submitted, Vide our letter no VC/WS/ENV/2022-23/87-D/F-81 dated: 07.04.2023. The Min, Max & Avg. Values of PM10,PM2.5,SO2 & NOx for the period October '2022 to March'2023 is as follows -

Location	PM10 in µg/m3			PM2.5 µg/m3			SO2 µg/m3			Nox µg/m3	
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max
Mines office	67	87	80	31	63	50	7	15	11	10	16
Power Plant	65	85	79	31	63	50	7	15	12	8	16
Guest House	67	83	78	31	61	49	8	15	12	9	16
Dairy Farm	67	85	79	29	62	49	7	15	12	9	16
Lions Bhavan	63	84	78	28	61	48	8	15	11	9	16

National Ambient Air Quality Standards – 2009 Industrial/Residential/Rural or other areas (24 hourly average in µg/m^3) for PM10, PM2.5, SO_2, NO_X	PM_{10}	$PM_{2.5}$	SO_2	NO_X
	100	60	80	80

The Values of ambient Noise levels in Industrial zone for the Month of February-2023 are :-

L_{day} dB(A)	Limit dB(A)	L_{Night} dB(A)	Limit dB(A)
63.1	75	52.6	70
68.2		54.1	
63.9		51.9	
58.2		48.8	
63.8		53.8	

vii	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	Vasavadatta Cement is following National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009.
viii	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.	Vasavadatta Cement has adopted transportation policy in order to reduce the impact of the transport of raw materials and the end products on surrounding environment including agricultural land. Vasavadatta Cement has received Green Co Platinum rating award from CII in the year 2015-16. Vasavadatta Cement had received a **"IconSWM – CE Excellence Award 2019"** The programme is being organized by Ministry of Housing & Urban Affairs, Govt. of India, New Delhi. 1000 delegates from 22 countries attended this Award Presentation ceremony. Vasavadatta Cement had received a **"22nd GreenTech Environment Award-2022"** from Greentech Foundation New Delhi.
ix	Fly ash shall be utilized as per the provisions of Fly Ash Notification, 1999, subsequently amended in 2003. Fly ash shall be stored in ash silo and 100% used in the cement manufacturing.	100 % Fly ash is utilizing in cement manufacturing process and Fly ash is stored in silos, as per the provisions of Fly Ash Notification, 1999, subsequently amended in 2003.
x	The company shall carry out the trace metal like mercury, chromium, lead, arsenic, and uranium etc., analysis in the all the raw materials like lime stone, gypsum, fly ash, slag coal etc. and the analysis reports shall be submitted Ministry's Regional Office at Bangalore, CPCB and SPCB.	All the raw material analysis of trace metals like mercury, chromium, lead, arsenic, uranium, in all the raw materials like lime stone, gypsum, fly ash, coal etc is being done as per ISO.
xi	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 Bangalore, CPCB and SPCB.	Vasavadatta Cement has installed a new technology named Hot Disc reactor for co-processing/utilization of high calorific wastes like tyre chips, rubber, plastic waste and carbon black powder etc. Vasavadatta Cement is submitting and maintaining the data of waste co processed in cement kiln to SPCB & CPCB periodically. The latest report was submitted vide our letter. No. VC/ WS/ENV/22-23/G-311 dated: 10.01.2023.

xii	Total water requirement shall not exceed 13983 m^3/day from Kagina River, Kamalavati barrage and Mines pit and the conditions stipulated in the permission letter obtained from the Central Ground Water Authority/State Ground Water Board complied with and shall be submitted to Ministry's Regional Office at Bangalore. 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.	Total water requirement is not exceeding 13983 m^3/day from Kagina River, Kamalavati barrage and Mines pit. The conditions stipulated in the permission letter obtained from the Central Ground Water Authority/State Ground Water Board is being complied with and shall be submitted to Ministry's Regional Office at Bangalore. "Zero discharge" is strictly adopted. There is no discharge of treated effluent outside the plant premises and all the treated effluent is used for cooling and dust suppression activities and STP treated wastewater is utilized for gardening in plant and colony.
xiii	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 Bangalore within 3 months from date of issue of this letter.	As a part of rainwater harvesting measures, garland drains are cut around the mine pit, whereby the rain water from the catchment area is channelized in to the mine pit. The stored water is utilized in the cement plant during lean season. Entire rain water of area under control is directed to rainwater harvesting pits at Mines and CPP area. The capacity of Mines pit is 40 lakh m3 & CPP of capacity 4 Lakh m3 are developed; Presently the water storage capacity is approx. 28.00 Lakh m3 as on March'2023 at Mines Pit. An action plan for construction of RWH pits and ground water recharge structures outside the plant premises is submitted to Ministry's Regional Office at Bangalore vide our letter no.-VC/WS/ENV/CKJ/10/B90/121, dated 16.04.2010.

xiv	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 28^0.	There is no generation of over burden whereas the top soil (Black Cotton Soil) generated will be treated as over burden. The slope of soil bund will be maintained within 37 -1/2^0 and due to step dumping over all slopes will be maintained as 28^0.
xv	Top soil, 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.	Top soil is used for formation of Bund along the mining lease boundary for development of green belt. Top soil handled and used for bund formation.

Year	Top Soil m^3
2008-09	162589
2009-10	96025
2010-11	161820
2011-12	175340
2012-13	85916
2013-14	126302
2014-15	187749
2015-16	171500
2016-17	196062
2017-18	142925
2018-19	168563
2019-20	115922
2020-21	188767
2021-22	159476
2022-23	312367

		<table><tr><th>Year</th><th>Colony</th><th>Factory</th><th>Mine</th><th>Total</th></tr><tr><td>2009-10</td><td>2500</td><td>1000</td><td>5500</td><td>9000</td></tr><tr><td>2010-11</td><td>2400</td><td>1490</td><td>6565</td><td>10455</td></tr><tr><td>2011-12</td><td>3060</td><td>3115</td><td>3140</td><td>9315</td></tr><tr><td>2012-13</td><td>2055</td><td>2135</td><td>2075</td><td>6265</td></tr><tr><td>2013-14</td><td>2914</td><td>6577</td><td>24027</td><td>33518</td></tr><tr><td>2014-15</td><td>1865</td><td>544</td><td>4516</td><td>6925</td></tr><tr><td>2015-16</td><td>1973</td><td>6380</td><td>4224</td><td>12577</td></tr><tr><td>2016-17</td><td>9856</td><td>9090</td><td>6994</td><td>25940</td></tr><tr><td>2017-18</td><td>9983</td><td>11262</td><td>4075</td><td>25320</td></tr><tr><td>2018-19</td><td>5204</td><td>5317</td><td>2977</td><td>13498</td></tr><tr><td>2019-20</td><td>3404</td><td>3329</td><td>1995</td><td>8728</td></tr><tr><td>2020-21</td><td>220</td><td>290</td><td>2340</td><td>2850</td></tr><tr><td>2021-22</td><td>1110</td><td>520</td><td>3260</td><td>4890</td></tr><tr><td>2022-23</td><td>2470</td><td>279</td><td>2380</td><td>5129</td></tr></table>
		Reclamation and rehabilitation of mined out area shall be carried out in accordance with mining plan / scheme approved by the Indian Bureau of Mines i.e. Hydro reclamation of mine pit. Request to issue corrigendum. We have requested for corrections vide letter no.VC: WS: ENV: CKJ: B83/2007 dated July 28, 2007. In addition to other species, Concarpus crectus trees (Common Name: Dubai Trees) are also planted in mines. **Characteristics of trees are as under:** 1)High tolerance to drought & frequent wet soils, 2)Dense foliage & feathery leaves, 3)Resistant to dust pollution, 4)Required a very little amount of water, 5) Resistant to pests & diseases
xvi	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 natural water course passing through the plant and mine area premises and submit to the ministry's Regional Office at Bangalore.**	There are no perennial nallas located within the mines area. River Kagina is the only major river located 4.4 KM from the mine boundary. Hence the impact of mining activity to that distance of 4.4 KM is not envisaged.

xvii	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 overall slope of the dump shall be maintained to 28^0. 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, Bangalore on six monthly bases.	There is no generation of waste and inter burden. The last submitted report of all EC compliance vide our letter no. VC/WS/ENV/2022-23/F-219/ dated 18.10.2022 for the period April-2022 to September-2022.

xviii	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.	Two pits of 40 Lakh m^3 of water storage capacities are developed. The present water storage is 28.00 Lakh m^3 as on March'2023.
xix	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.	Vasavadatta Cement has provided a drain driven in the lease hold connecting the sloping area to arrest soil erosion and check dam is constructed across to prevent carrying of silt and clay particles along with it which will be accumulated in check dam and will be de silted after monsoon.
xx	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.	Garland drains are cut around the mine pit, whereby the rain water from the catchment area is channelized in to the mine pit. The catch drains will also be cut around the soil dump and the water will be directed to mines pit which will act as settling pond apart from the water storage. Considering as rainfall of 1025 mm total capacity of sump required is around 14.18 Lakh m^3. We have already developed pit capacity of 40 Lakh m^3 capacities keeping 50% margin as advised. The stored water in the mine pit is utilized in the cement plant for process, watering in mine road and for gardening at mines.
xxi	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.	There is no dump of over burden. Top removed being used for formation of Bund along the mining lease boundary for development of green belt.

xxii	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 Bangalore, Central Ground Water Authority and Central Ground Water Board.	The result of ground water level and quality monitoring report (from January '2022 to September '2022) collected from GWSU Gulbarga and water quality report of Winter & Summer Season 2021-22 is submitted to Ministry vide our letter VC/WS/MINE/UVR/66A/2022-23/ Dated. 22.10.2022.
xxiii	Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders shall be implemented.	Blasting operations are carried out using the latest controlled blasting technique; NONEL and latest Software BIMS (Blast Information System). Blasting is carried out in day time only and will be avoided in windy periods.
	The project proponent shall adopt wet drilling.	Drills are being wet operated
	As proposed, green belt shall be developed in 76.34 ha in plant & colony and around the plant as per the CPCB guidelines. The mining area except water body shall be developed as green belt.	Vasavadatta Cement has already developed 86 Ha, Approx. Green belt in plant, colony, Mines and around the plant as per the CPCB guidelines. The Details of Tree Plantation in Vasavadatta Cement Colony, Factory and Mines area from 2009-10 to 2022-2023 as on March-2023 are as follows:

xxv		Year	Colony	Factory	Mine	Total	
		2009-10	2500	1000	5500	9000	
		2010-11	2400	1490	6565	10455	
		2011-12	3060	3115	3140	9315	
		2012-13	2055	2135	2075	6265	
		2013-14	2914	6577	24027	33518	
		2014-15	1865	544	4516	6925	
		2015-16	1973	6380	4224	12577	
		2016-17	9856	9090	6994	25940	
		2017-18	9983	11262	4075	25320	
		2018-19	5204	5317	2977	13498	
		2019-20	3404	3329	1995	8728	
		2020-21	220	290	2340	2850	
		2021-22	1110	520	3260	4890	
		2022-23	2470	279	2380	5129	
xxvi	All the recommendations of the Corporate Responsibility or Environmental Protection (CREP) for the cement plants shall be strictly followed.	Vasavadatta Cement is following the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP) strictly.					
xxvii	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.	Vehicular emission is regularly monitored once in every 6 month as prescribed under Rules 231(B) (8) Karnataka Motor vehicle Rules – 1989. The limestone fragmentation is maintained at average level with no fines generation. The material is drenched with water regularly before loading in dumpers for onward transportation from mines face to crusher installed in the mines pit. The crushed limestone is transported from mines crusher to plant by 1.4Km long conveyor covered with hood.					
xxviii	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, Bangalore.	Digital processing of the entire lease area by using remote sensing techniques has been done for monitoring land cover and land use pattern. Report of study is submitted to Ministry vide our letter no.VC/WS/MINE/GSR/66A/ 2020-21/18 dated: 10.07.2020. Three years is completed from last submission for latest LULC work order is already issued to Chaithanya Geo Surveys, Hospet the process of acquisition of satellite images is pending from NRDS ISRO DOS GOI Balanagar, Hyderabad.					

xxix	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.	Review of Mining Plan including progressive Mine Closure Plan for period from 2022-23 to 2026-27 pertaining to Injepalli Limestone Mine is approved from the Indian Bureau of mines Bangalore vide 279/168/90/BNG/100 dtd 27.01.2022 Along with PMCP we have submitted the bank Guarantee for Rs.11,73,80,000/- (Rupees Eleven Crores Seventy-three Lakhs Eighty Thousand Only) for period from 01.04.2012 to 31.03.2027. Towards financial assurance. As per new rule 27(1) of Mineral Conservation and Development (Amendment) rules,2021 and rules of MCDR 2017 @ of Rs.5,00,000/- per Ha.
xxx	Provision shall be made for the housing of construction labor 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.	Vasavadatta Cement will provide all the necessary infrastructure facilities & amenities; once the project is completed, temporary structures will be removed.
General Conditions:-		
i	The project authority shall adhere to the stipulations made by Karnataka State Pollution Control Board (KSPCB) and State Government.	Vasavadatta Cement will follow the stipulations made by Karnataka State Pollution Control Board (KSPCB) and State Government.
ii	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	No further expansion or modification of the plant will be carried out without prior approval of the Ministry

iii

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.

Environmental monitoring report from (April' 2021 to September'2021) is submitted vide our letter. No.VC/WS/MINE/NA/66A/2021-22/46 Dated 26.10.2021.

Five air Quality monitoring stations are installed in consultation with KSPCB and monitored data is submitted to the State Pollution Control board on monthly basis and half yearly reports are being submitted regularly to Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore, the latest report submitted, Vide our letter no VC/WS/ENV/2020-21/ F-748 dated: 10.10.2022.

The Min, Max & Avg. Values of PM10,PM2.5,SO2 & NOx for the period October'2022 to March'2023 is as follows:-

Location	PM_{10} in µg/m³			$PM_{2.5}$ µg/m³			SO_2 µg/m³			NOx µg/m³	
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max
Mines office	67	87	80	31	63	50	7	15	11	10	16
Power Plant	65	85	79	31	63	50	7	15	12	8	16
Staff Club	67	83	78	31	61	49	8	15	12	9	16
Dairy Farm	67	85	79	29	62	49	7	15	12	9	16
Lions Bhavan	63	84	78	28	61	48	8	15	11	9	16

National Ambient Air Quality Standards – 2009 Industrial/Residential/Rural or other areas (24 hourly average in µg/m³) for PM10, PM2.5, SO_2, NO_x	PM_{10}	$PM_{2.5}$	SO_2
	100	60	80

iv

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.

The wastewater is being properly collected & treated as per GSR 422 (E) standards. Presently, the treated wastewater from power plant is utilized for plantation & Cement manufacturing process.

The analysis values for the particulars of industrial wastewater samples from ETP outlet for the month of February-2023 is tabulated below.

S No	Characteristics	Actual	Stipulated
1	pH	8.18	5.5 to 9.0
2	TSS, mg/l	17.5	20
3	Oil & Grease, mg/l	5.1	10

		Also the analysis values for the particulars of Treated sewage samples at the outlet of STP for the month of February-2023 is tabulated below.

S No	Characteristics	Actual	Stipulated
1	BOD	7.4	10
2	TSS, mg/l	17.5	20

v	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)	Ambient noise levels in and around the plant area are within the prescribed standards under Environmental (Protection) Act. Noise generating sources like Blowers and Compressors have been segregated and housed in secluded buildings. We have selected screw compressors with acoustic enclosure. In CPP all turbines are provided with Acoustic enclosures. Noise levels of Motors are reduced by changing Air cooling fans & Shell cooling fans aluminium blades are replaced by FRP blades. Noise level monitoring for the Month of February-2023 is as follows:-

Zone	Monitoring Location	Lday (6.00 AM to 10.00 PM)	Limit	Lnight (10.00 PM to 06.00 AM)	Limit
Industrial Zone dB(A)	Kamalavathi river (E)	63.1	75	52.6	70
	Lorry yard gate-02 (W)	68.2		54.1	
	Power plant (N)	63.9		51.9	
	STP area (S)	58.2		48.8	
	Towards Mines (NE)	63.8		53.8	

vi	Proper housekeeping and adequate occupational health programmes shall be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained properly for at least 30-40 years. The programme 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.	Two TPS 3D machines & Six truck mounted system are operated for road sweeping in plant and colony. Apart from this manually operated floor sweeping machines are in operation in order to maintain good housekeeping. The Occupational Health Centre is fully equipped with 3 No's Ambulances 1 is with equipped with Advance Life Support and other 2 are with normal with O2 support and life support drugs,we have back support Ozygen cyliders, Oxygen concentrator,Pharmacy, General ward with Day Care, Clinical Labrotary, ECG, Spirometroy, Audiometry, Pulse oximeters Nebulizer, Digital X-Ray Machine 300 MA, Vision Test is outsource by opthamology. (Following health checkups are being carried out at our OHC centre periodically for staff & workers, Lung function test & Sputum analysis is being done.)
vii	The company shall undertake eco-development measures including community welfare measures in the project area.	The company will undertake eco-development measures including community welfare measures in the project area.
viii	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP.	VC will comply all the environmental protection measures and safeguard the recommended EIA/ EMP.
ix	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.	Environment cell is provided with well qualified Engineers (3 persons) holding P.G in Environment to carryout various activities, stack emission monitoring, Ambient air quality monitoring, Noise monitoring at plant boundaries and machineries, Report preparation and Compliances etc., The Environment Cell is set up under senior Executive of Head-Environment who is reporting directly to Chief Manufacturing Officer

x	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.	For Existing Cement Plant (I to IV) and Power plant (I to V) pollution control expenditure as on March 2023 is 131.10 Crores (Approx.). Expenses on social activities (town and rural development) and GAK from the year 2006 to 2023 is 13.26 Crores. Environmental implementation schedule will be prepared when the project starts (Unit – V Cement plant). The funds earmarked for environmental protection is not diverted for any other purposes.
xi	The Regional Office of this Ministry / CPCB / KSPCB 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.	Vasavadatta Cement will provides cooperation to the officers of the Regional Office by furnishing the requisite data / information / monitoring reports. Six monthly reports are being submitted regularly to The Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore, The last submitted report of all EC compliance vide our letter no. VC/WS/ENV/2022-23/F-219 dated 18.10.2022 for the period April-22 to September-22. The latest report of monitored data along with statistical interpretation is submitted to The Additional Principal Chief Conservator of Forests -Regional Office of the ministry at Bangalore Vide our letter no VC/WS/ENV/22-23/87-D/F-81 dated: 07.04.2023. For the period October-22 to March-23.

xii	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the KSPCB.	Half yearly point wise compliance report for environmental clearance for the period April-2022 to September-2022 is submitted, vide our letter no VC/WS/ENV/2022-23/F-219 dated 18.10.2022.
xiv	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.	Any change in the technology and scope of working will be implemented only after the prior approval of MoEF.
xv	Measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in operations of HEMM etc. shall be provided with ear plugs / muffs.	Appropriate measures are being taken for control of noise levels below 85 dB (A) by maintaining all machines in good conditions, following scheduled preventive maintenance and Tightening of fasteners regularly. Persons engaged in blasting drilling & Heavy Earth Moving Machineries operations are provided with ear Plugs / muffs.
	Industrial wastewater (workshop and wastewater 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 separation tank is constructed & maintained to separate the oil, grease content from the water used for Heavy Earth Moving Machineries washing. The Oil and grease trap Water confirms to the standards prescribed under GSR 422(E). The wastewater is being properly collected & treated to the GSR 422 (E) standards. Presently, the wastewater from power plant is utilized for plantation purpose. Regular monitoring of effluent water is carried out as per the standards under GSR422 (E) for four seasons in a year. The latest Monitoring report for 2022-23 carried out in February '2023 as tabulated below:

xvi			S No	Characteristics	Results	Stipulated	
			1	pH	8.18	5.5 to 9.0	
			2	BOD, mg/l	9.5	10	
			3	COD, mg/l	38.6	250	
			4	TSS, mg/l	17.5	20	
			5	TDS, mg/l	643	2100	
			6	Sulphate as S,mg/l	120	250	
			7	Chlorides as Cl, mg/l	216	1000	
			8	Oil & Grease, mg/l	5.1	10	
		Waste water generated from washing ramp is treated and used for gardening at Mines workshop.					

xvii	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.	Protective respiratory devices are provided to Persons working in dusty areas and training & information on safety and health aspects have been given. All the persons are periodically examined for medical covering general health checkup, audiometry, spirometer, lung function test and X ray.
xviii	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.	We have already informed to the Regional Office about the Commencing the land development work of Power plant only in vide our letter no VC / WS / ENV / CKJ / 2010/B87/3519, dated: 24.02.2011.
xix	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.	A copy of clearance letter has been submitted to concerned Panchayat vide our letter no. VC/WS/ENV/CKJ/10/B90/121, dated: 16.04.2010.
xx	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations if any were received while processing the proposal. The clearance letter shall also put up on the website of the Company by the proponent.	A copy of clearance letter has been submitted to concern Panchayat and is also displayed on the Company website. The EC copy is advertised in Two newspapers namely 1) Deccan Herald 2) Prajavani.

xxi	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 Karnataka State Pollution Control Board and also at web site of the Ministry of Environment and Forest at "http://envfor.nic.in" and a copy of the same shall be forwarded to the Regional Office of this Ministry.	Vasavadatta Cement has informed the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at After issuance of the clearance, Clearance letter has been published in two local newspapers in vernacular language 1) Deccan Herald 2) Prajavani and the same have been forwarded to the R. O.
xxii	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the Company along with the status of compliance of EC conditions and shall also be sent to the respective regional Office of the MoEF by e-mail.	Vasavadatta Cement is submitting Environmental statement Report in Form-V regularly to State Pollution Control Board & MoEF Regional Office, each financial year, after 31st March, and the same is uploaded in Vasavadatta Cement website and status of compliance of All EC conditions is being sent to the respective regional Office of the MoEF.
6	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.	Vasavadatta Cement will follow the stipulations/ further conditions made by Ministry / competent Authority.
7	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Vasavadatta Cement will follow & implement the above conditions satisfactorily.

8	Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.	Vasavadatta Cement will follow & implement the stipulated additional conditions in a time bound manner.
9	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, Second Floor, Trikoot-I, Bhikaji Cama Place, New Delhi-110066, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.	If any appeal against this environmental clearance will be intimated to the Conserned authority at the specified address.
10	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.	Vasavadatta Cement will implement the above said conditions 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.

POINTWISE COMPLIANCE REPORT TO EC FOR MINES MoEF, Delhi.

Vide MoEF EC no. J-11015/98/2004-IA. II (M) Dated 28th March 2005. Updated as on 31.03.2023

<table>
<tr><th>S.no</th><th>Condition</th><th>Compliance Status</th></tr>
<tr><td colspan="3">A. Specific Conditions</td></tr>
<tr><td>(i)</td><td>Topsoil should be stacked properly with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of greenbelt and for bund construction.</td><td>Top soil is used for formation of Bund along the mining lease boundary for development of green belt. Top soil handled and used for bund formation is as follows:
<table>
<tr><th>Year</th><th>Soil Utilized for Bund formation in m^3</th></tr>
<tr><td>2011-2012</td><td>175340</td></tr>
<tr><td>2012-2013</td><td>85916</td></tr>
<tr><td>2013-2014</td><td>126302</td></tr>
<tr><td>2014-2015</td><td>187749</td></tr>
<tr><td>2015-2016</td><td>171500</td></tr>
<tr><td>2016-2017</td><td>196062</td></tr>
<tr><td>2017-2018</td><td>142925</td></tr>
<tr><td>2018-2019</td><td>168563</td></tr>
<tr><td>2019-2020</td><td>115922</td></tr>
<tr><td>2020-2021</td><td>188767</td></tr>
<tr><td>2021-2022</td><td>159476</td></tr>
<tr><td>2022-2023</td><td>312367</td></tr>
</table></td></tr>
<tr><td></td><td>Catch drains and siltation ponds of appropriate size</td><td>1. Garland drains are cut around the mine pit, whereby the rain water from the catchment area is channelized into the mine pit.</td></tr>
</table>

(ii)	should be constructed to arrest silt and sediment flows from soil dump and from within lease area. The water so collected should be utilized for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly. Garland drains (size, gradient & length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mines site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.	2. The catch drains also cut around the soil dump and the water is directed to mines pit which will act as settling pond.
		3. Considering average rain fall of 1025 mm a sump of capacity 14.18 Lakh m^3 is required
		4. We have developed pit capacity of 40 Lakh m^3. Keeping 50 % margin as advised. The stored water in the mine pit is utilized in the cement plant for process.
(iii)	Crushers should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, haulage roads, transfer points, etc.	Following precautions are taken at crusher hopper.
		1. Bag Filter is provided at crusher.
		2. Conveyor belt curtain along with water sprinkler is provided on hopper for suppression dust generated during unloading.
		3. Static road sprinklers and Mist type water tanker on haul roads are provided to suppress the dust generated during transportation of material.
		4. Water in the form of mist is being sprayed by rain gun on blasted material before loading of material to reduce dust.
		5. Regular stack monitoring is carried out at crusher chimney as a part of environmental management.
(iv)	Drills should be wet operated or with dust extractors and operated only during daytime.	1. Drills are being wet operated to suppress the dust generation at source itself.
		2. Also Dust collector is provided in the drilling machine to arrest the dust generated during drilling.
		3. Drilling operation is being carried out only during daytime.

<table>
<tr><td>(v)</td><td>Controlled blasting should be practiced with the use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.</td><td>2. Latest Software BIMS (Blast Information System). Blasting is used for designing post blasting parameters to minimise the effect of Noise and Vibration.

3. Carried out in day time only and will be avoided in windy periods.</td></tr>
<tr><td>(vi)</td><td>The total area that shall be brought under plantation at the end of mine life is 90 ha which includes areas under green belt, and reclaimed dumps by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2000 plants per ha.</td><td>Plantation is done in Mine Lease area as mentioned below.
<table>
<tr><th>Year</th><th>Colony</th><th>Factory</th><th>Mine</th><th>Total</th></tr>
<tr><td>2009-10</td><td>2500</td><td>1000</td><td>5500</td><td>9000</td></tr>
<tr><td>2010-11</td><td>2400</td><td>1490</td><td>6565</td><td>10455</td></tr>
<tr><td>2011-12</td><td>3060</td><td>3115</td><td>3140</td><td>9315</td></tr>
<tr><td>2012-13</td><td>2055</td><td>2135</td><td>2075</td><td>6265</td></tr>
<tr><td>2013-14</td><td>2914</td><td>6577</td><td>24027</td><td>33518</td></tr>
<tr><td>2014-15</td><td>1865</td><td>544</td><td>4516</td><td>6925</td></tr>
<tr><td>2015-16</td><td>1973</td><td>6380</td><td>4224</td><td>12577</td></tr>
<tr><td>2016-17</td><td>9856</td><td>9090</td><td>6994</td><td>25940</td></tr>
<tr><td>2017-18</td><td>9983</td><td>11262</td><td>4075</td><td>25320</td></tr>
<tr><td>2018-19</td><td>5204</td><td>5317</td><td>2977</td><td>13498</td></tr>
<tr><td>2019-20</td><td>3404</td><td>3329</td><td>1995</td><td>8728</td></tr>
<tr><td>2020-21</td><td>220</td><td>290</td><td>4150</td><td>4660</td></tr>
<tr><td>2021-22</td><td>1110</td><td>520</td><td>3260</td><td>4890</td></tr>
<tr><td>2022-23</td><td>2470</td><td>279</td><td>2380</td><td>5129</td></tr>
</table>
In addition to other species, Concarpus crectus trees (Common Name: Dubai Trees) are also planted in mines.

<u>Characteristics of trees are as under:</u>

1)High tolerance to drought & frequent wet soils,
2)Dense foliage & feathery leaves,
3)Resistant to dust pollution,
4)Required a very little amount of water,
5) Resistant to pests & diseases</td></tr>
</table>

(vii)	Reclamation of quarried area (void) of 807.86 ha shall be developed as a water reservoir and used for recharge of ground water. The higher benches of the void shall be terraced and plantation done to stabilize the slopes. Peripheral fencing shall be done along the excavated area.	As on 01.04.2023 about 160.00 Ha areas is broken. Out of this, Limestone and Shale is fully removed from the area of 5.23 Ha. Approx. and is developed as water reservoir.
(viii)		The point number (viii) is missing and we assume that it is a typographical error in numbering.
(ix)	The company shall implement measures for rainwater harvesting and other measures for recharge of ground water for augmentation of ground water resource.	Two pits of 40 Lakh m^3 water storage capacities are developed. The present water storage is 28.00 Lakh m^3 as on 31.03.2023.
(x)	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should be done for a minimum four times a year in pre monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for ground water quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and the Central Ground Water Board, Regional Office quarterly within one month of monitoring.	The result of ground water level and quality monitoring report (from Jan'2022 to Sept'2022) collected from GWSU Gulbarga and water quality report for Winter season 2022-23 is submitted to Ministry vide our letter VC/WS/MINE/UVR/66A/2022-23/ Dtd 22.10.2022. Meanwhile, we have sent an request letter to GWSU with the fee for ground water reports from Oct'2022 to Feburuary'2023 vide letter VC/WS/MINES/VD/66B/2022-23 Dated 03.03.2023. Due election duty of the officers the report is getting delayed from GWSU. As soon we receive the report. we will submit the same. (Letter is enclosed as Annexure-I).
(xi)	Mining will not intersect ground water. Prior permission of the CGWA and MOEF shall be taken to mine below ground water.	Authenticated certificate is given by GWSU, ZP, Gulbarga through Letter No SG/GWS/ZP/2005-06/840 Dated 30.01.2006.

(xii)	Digital processing of the entire lease area using remote sensing techniques should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional Office at Bhopal.	Digital processing of the entire lease area by using remote sensing techniques has been done for monitoring land cover and land use pattern. Report of study is submitted to Ministry vide our letter no.VC/WS/MINE/GSR/66A/ 2020-21/18 dated: 10.07.2020. As per rule 34A of Mineral Conservation & Development Rules, 2017 we are carrying out drone survey of ML Area including 100 MTS buffer zone. The Drone survey for 2022-23 will be carrying out in the month of May'2023 & report will submitted to your good office.
(xiii)	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	A final Mine Closure Plan will be prepared 5 years prior to closing of mines.
(xiv)	The Proponent shall earmark a separate fund of 1% of the total project cost subject to a minimum of Rs. 50,000/- for eco development measures including community welfare measures in the project area. The amount shall be deposited by the Company in a separate account within three months to be maintained by the Karnataka State Pollution Control Board. The action plan in this regard shall be submitted to the SPCB as well as to MoEF and its Regional office at Bangalore within three months of issue of this letter. After approval of the action plan by the SPCB, the amount deposited shall be released in two instalments to the project authorities based on progress of implementation. The SPCB shall ensure that implementation of the action plan for eco development measures is completed within two years from date of its approval by SPCB. Further, the interest accrued during this period on the amount deposited by the proponent with the SPCB shall be ploughed back to the same eco-Development fund.	M/s Vasavadatta Cement has deposited an amount of Rs.50000/- with the Karnataka State Pollution Control Board vide letter no. VC/WS/ENV/CKJ/B55/526DT dated 25.05.2005. The action plan in this regard is submitted to the KSPCB as well as to MOEF and its Regional office at Bangalore. Request for reimbursement for Eco-development fund is submitted vide our letter no. VC: WS: ENV: CKJ: F10 (ENV):554, dated 31.08.2009 again requested vide letter Vc:WS:ENV:HMO:2018-19:B-59(Env), dated 20.06.2018.

B. General Conditions		
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry Of Environment & Forests.	Any change in the technology and scope of working will be implemented only after taking prior approval of MoEF.
(ii)	No change in the calendar plan including excavation, quantum of limestone, waste dumps should be made.	No changes will be made in calendar plan including excavation, quantum of limestone handling.
(iii)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for monitoring RPM, SPM, NO_X and SO_2. Location of the ambient air quality station should be decided based on meteorological data, topographical features and environmentally and ecologically sensitive targets and the frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Five stations in core zone and 7 stations in buffer zone are established in consultation with the State Pollution Control Board. Four permanent AAQ stations (02 in Core & 02 in Buffer zone is fixed) with the approval of KSPCB) The monitoring of ambient air quality is in accordance with the MoEF Notification, NAAQ Standards 2009
(iv)	Data on the environmental quality should be regularly submitted to the Ministry including its Regional Office at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.	Environmental monitoring report from (April'2022 to September'2022) vide : VC/WS/MINE/VD/66A/2022-23/234. Dtd 19.10.2022 is submitted to Moefcc for Summer & Mosoon season 2022.
(v)	Adequate measures for control of fugitive emissions should be taken during drilling & blasting operations, loading and transportation of mineral, etc. Fugitive dust emissions should be regularly monitored and data recorded properly. Water spraying arrangements on haul roads, loading and unloading points, and transportation of minerals, etc. should be provided and properly maintained.	Due care is taken in control of fugitive emissions as under. 1) Wet drilling arrangement is made in drilling machine. 2) Permanent water sprinklers are installed on haul road for dust suppression. 3) Apart from above 02 No's water tankers are provided with pressurized water sprinkling arrangements for haul road and rain fitted for water sprinkling on blasted heap prior to loading.

<table>
<tr><td></td><td></td><td>4) NIVIS dust suppression system for suppression of Air borne dust.</td></tr>
<tr><td rowspan="4">(vi)</td><td rowspan="4">Adequate measures should be taken for control of noise levels below 85 dB (A) in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc., should be provided with ear plugs/muffs.</td><td>1. Machineries are maintained in good condition by following scheduled</td></tr>
<tr><td>2. All the HEMM are provided with AC Cabins.</td></tr>
<tr><td>3. Tightening of fasteners is done regularly.</td></tr>
<tr><td>Persons engaged in blasting, drilling & HEMM operations are provided with ear Plugs / muffs</td></tr>
<tr><td>(vii)</td><td>Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap should be installed in the mine for treatment before discharge of effluents from the Workshop. Mine seepage water shall be tested and treated to conform to prescribed standards before discharge.</td><td>
<u>Water Quality of Mines Workshop effluent as per GSR-422(E) During During Monsoon Season 2022-23.</u>
Oil and Grease separation tank is constructed & maintained to separate the oil, grease content from the water used for Heavy Earth Moving Machineries washing. The Oil and grease trap Water confirms to the standards prescribed under GSR 422(E).
The wastewater is being properly collected & treated to the GSR 422 (E) standards. Presently, the wastewater from power plant is utilized for plantation purpose.
Regular monitoring of effluent water is carried out as per the standards under GSR422 (E) for four seasons in a year.
The latest Monitoring report for Winter Season2022-23 carried out in <u>August '2022</u> as tabulated below:
<table>
<tr><th>S No</th><th>Characteristics</th><th>Max</th><th>Min</th><th>Stipulated</th></tr>
<tr><td>1</td><td>pH</td><td>7.93</td><td>7.89</td><td>5.5 to 9.0</td></tr>
<tr><td>2</td><td>TDS, mg/l</td><td>277</td><td>258</td><td>2100</td></tr>
<tr><td>3</td><td>Chlorides as CL, mg/l</td><td>43.8</td><td>37.8</td><td>1000</td></tr>
<tr><td>4</td><td>Flouride as F, mg/l</td><td>1.37</td><td>1.3</td><td>2</td></tr>
<tr><td>5</td><td>Sulphastes as SO4, mg/l</td><td>63.9</td><td>61.2</td><td>1000</td></tr>
<tr><td>6</td><td>Iron as Fe, mg/l</td><td>0.04</td><td>0.01</td><td>1</td></tr>
<tr><td>7</td><td>Colour</td><td colspan="2"><1.0</td><td>All efforts should be</td></tr>
</table>
</td></tr>
</table>

		8	Odour	Objectionable	made to remove colour and
(viii)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	Protective respiratory devices are provided to Persons working in dusty areas and training & information on safety and health aspects have been given.			
	Occupational health surveillance programme of the workers should be undertaken periodically and corrective measures taken, if required. Annual audiometric tests shall be done to employees in noise generating work zone and preventive measures implemented.	All the persons are periodically examined for medical covering general health check-up, audiometry, spirometry, lung function test and X ray.			
(ix)	The data on environmental quality should be collected and analyzed either through an in-house environmental laboratory established with adequate number and type of pollution monitoring and analysis equipment or got analysed through an approved laboratory under the Environment (Protection) Rules, 1986 in consultation with the State Pollution Control Board.	The data of environmental quality is collected and got analysed through an NABL approved laboratory by M/s. Universal Enviro Associates., Hyderabad and Reports are submitted regularly to Ministry on quarterly basis.			
(x)	A separate environmental management cell with suitable qualified personnel should be set up under the control of a senior executive who will report directly to the head of the organization.	Environment cell is provided with well qualified Engineers holding P.G in Environment to carry out various activities like Analysis of stack emission monitoring, Ambient air quality monitoring, Noise monitoring at plant boundaries and machineries , Report preparation and Compliances under senior Executive of Head-Environment who is reporting directly to Chief Manufacturing Officer.			

(xi)	The funds earmarked for environmental protection measures should be kept in separate account and not diverted for any other purpose. Year-wise expenditure should be reported to the Ministry of Environment & Forests.	The funds earmarked & year-wise expenditure reports for environmental protection measures for the financial year 2021-22 is being submitted regularly to MoEF, the latest report submitted Vide our letter no.VC/WS/MINE/UVR/2022-23/ Dated 20.06.2022 and funds are not diverted for any other purposes.
(xii)	The project authorities should inform to the Regional office located at Bangalore 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 date is informed vide letter no VC: WS: ENV: CKJ: B82A/2007/1562 dated. July 19, 2007 regarding financial closure.
(xiii)	The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated environmental conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information /monitoring reports.	Vasavadatta Cement will ensure full cooperation in all respect to the officers by furnishing the requisite data/information /monitoring reports to Regional Office of Ministry.
(xiv)	A copy of the clearance letter should be marked to concerned Panchayat / local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	A copy of clearance is already submitted to concern Panchayat.
(xv)	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the collector's /Tehsildar`s Office for 30 days.	Not Applicable
	The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned	The EC copy is advertised in Two newspapers namely 1) Deccan Herald 2) Prajavani.

(xvi)	within 7 days of issuance 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 may also be seen at web site of the Ministry of Environment and forests at **http://envfor.nic.in.**	Additionally we are hosting EC compliance reports in company web site **https://www.birlashakticement.com** On half yearly basis.
3	The Ministry or any other competent authority may stipulate any further additional condition for environmental protection.	Vasavadatta Cement will follow all the additional condition stipulated on us.
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance.	Vasavadatta Cement will abide to the condition
5	The above conditions will be enforced, inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control) of Pollution Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Vasavadatta Cement will abide to the condition

POINTWISE COMPLIANCE REPORT TO ENVIRONMENTAL CLEARANCE FOR MINES (Accorded by MoEF, New Delhi.)		
Vide MoEF EC No. J-11015/328/2006-IA.II (M) Dated. April 4th 2007 & corrigendum No. J-11015/328/2006-IA.II (M) dated September 17th, 2007. Updated as 31.03.2023		
S.No.	**Condition**	**Compliance Status**
Specific Conditions		
(i)	The mining operation shall not intersect the ground water table. Prior approval of the Ministry of Environment and Forests and Central Ground Water Authority shall be obtained for mining below water table.	Maximum Mining depth will be 60 meter (BGL). Depth of ground water table in the area is 90-95 meter (BGL). Hence the mining operations will not intersect ground water table. However, prior approval of the Ministry of Environment & Forests and Central Ground Water Authority will be obtained for mining below water table. Authenticated certificate is given by GWSU, ZP, Gulbarga through Letter No.SG/GWS/ZP/2005-06/840 Dtd.30.01.06 .
(ii)	Top soil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area.	Top soil will be utilized for formation of bund along mining lease boundary and green belt development outside the mining lease area. So far **59,84,268** MT the top soil generated and utilized for bund formation. Mines having top soil as overburden up to the depth of 1 to 1.5m from the surface and generated soil quantity is very less and also it is used for formation of green belt all along the lease boundary, plant & Colony. So there is no sufficient top soil to backfill for Reclamation hence mined out area will be converted into Hydro reclamation in accordance with mining plan / scheme approved by the Indian Bureau of Mines.
	Over burden shall be stacked at earmarked dump site (s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m; each stage shall preferably be of 10 m and overall	The slope of soil bund will be maintained within the limit 37 -1/2^0 and due to step dumping over all slopes is maintained as 28^0. Rehabilitation of mined out area into Hydro reclamation in accordance with mining plan / scheme approved by the Indian Bureau of Mines.

(iii)	slope of the dump shall not exceed 28º. The mine pit area shall be reclaimed by back filling the OB in a phased manner. The OB 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 on six monthly basis.	Half yearly point wise compliance report for environmental clearance for the period April'2022 to September'2022 is submitted, vide our letter no VC/WS/ENV/2022-23/F1 dated 18.10.2022.
(iv)	(Garland drains/trench around the mine shall be constructed to arrest flow of **limestone,** silt and sediment flows from soil, and mineral dumps into the agricultural field. 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. Garland drain (size, gradient and length) shall be constructed for both mine pit and for waste dump 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.	Garland drains are cut around the mine pit, whereby the rain water from the catchment area is channelized in to the mine pit. To arrest soil erosion the toe bunds will be formed along the periphery of soil bund bottom. The catch drains will also be cut around the soil dump and the water will be directed to mines pit which will act as settling pond apart from the water storage. The stored water in the mine pit is utilized in the cement plant for process and dust suppression on haul roads, blasted heaps before commencement of loading etc. No water is pumped and discharged out of the mine. The mine sump is designed for the capacity of 40 Lakh m^3.

<table>
<tr><td>(v)</td><td>The project proponent shall prepare a rehabilitation action plan to rehabilitate the villagers for implementation in consultation with the State Government and the affected person</td><td>This is not Applicable for present project.</td></tr>
<tr><td>(vi)</td><td>Drilling & blasting shall be by using dust extractors/wet drilling.</td><td>Drilling machines are provided with wet drilling arrangements and Dust collectors also. Blasting is avoided in windy condition; Plantation is being done along the lease boundary for arrest of dust generated during blasting.</td></tr>
<tr><td>(vii)</td><td>Plantation shall be raised in an area of 63.8 ha including a green belt of adequate width by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees shall be around 2500 plants per ha.</td><td>Plantation carried out for different years is as follows.
<table>
<tr><th>Year</th><th>On Bund</th><th>Other area</th><th>Total</th></tr>
<tr><td>2009-10</td><td>-</td><td>5500</td><td>5500</td></tr>
<tr><td>2010-11</td><td>3450</td><td>3415</td><td>6865</td></tr>
<tr><td>2011-12</td><td>3246</td><td>1504</td><td>4750</td></tr>
<tr><td>2012-13</td><td>800</td><td>2315</td><td>3115</td></tr>
<tr><td>2013-14</td><td>-</td><td>7492</td><td>7492</td></tr>
<tr><td>2014-15</td><td>3850</td><td>-</td><td>3850</td></tr>
<tr><td>2015-16</td><td>1945</td><td>4805</td><td>6750</td></tr>
<tr><td>2016-17</td><td>2000</td><td>4994</td><td>6994</td></tr>
<tr><td>2017-18</td><td>1030</td><td>3045</td><td>4075</td></tr>
<tr><td>2018-19</td><td>1067</td><td>1910</td><td>2977</td></tr>
<tr><td>2019-20</td><td>0</td><td>1995</td><td>1995</td></tr>
<tr><td>2020-21</td><td>0</td><td>2340</td><td>2340</td></tr>
<tr><td>2021-22</td><td>1770</td><td>1490</td><td>3260</td></tr>
<tr><td>2022-23</td><td>0</td><td>2380</td><td>2380</td></tr>
</table></td></tr>
<tr><td>(viii)</td><td>The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board</td><td>Suitable conservation measures have been taken to augment ground water resources by constructing check dam in lower laying area and making garland drains along the mining lease. We have submitted a letter to The Regional Director, CGWB, Bangalore vide our letter no.VC: WS: MINES: CKJ: 66 : 2009 / 10 : 849 Dated 06/11/2009 about the water level in surrounding villages comparatively increasing order due to rain water harvesting practices.</td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

(ix)	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year - pre-monsoon (April - May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MoEF, Central Ground Water Authority and Regional Director Central Ground Water Board.	The result of ground water level and quality monitoring report (from Jan'2022 to Sept'2022) collected from GWSU Gulbarga and water quality report for Winter season 2022-23 is submitted to Ministry vide our letter VC/WS/MINE/UVR/66A/2022-23/ Dtd 22.10.2022. Meanwhile, we have sent an request letter to GWSU with the fee for ground water reports from Oct'2022 to Feburuary'2023 vide letter VC/WS/MINES/VD/66B/2022-23 Dated 03.03.2023. Due election duty of the officers the report is getting delayed from GWSU. As soon we receive the report. we will submit the same. (Letter is enclosed as Annexure-I).
(x)	The project proponent shall convert the mined out area into pisciculture and as a source of drinking water and recreational activities and form a cooperative society of local people to undertake pisciculture.	Vasavadatta Cement will encourage pisciculture once the mine life is exhausted as per IBM approved Review of Mining Plan including progressive Mine Closure Plan for period from 2022-23 to 2026-27 pertaining to Injepalli Limestone Mine is approved from the Indian Bureau of mines Bangalore vide 279/168/90/BNG/100 dtd 27.01.2022 Along with PMCP.
(xi)	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.	Regular monitoring of vehicular emission is done once in every six months as required under Rules 231(B) (8) KMV Rules 1989 from authorised agencies. Also the Limestone fragmentation is maintained at average level with no fines generation. The material is drenched with water regularly before loading the material in dumpers for onward transportation from mines face to crusher installed in the mines pit. The crushed Limestone is transported from Mines Pit to crusher by 1.4 Km long belt conveyor covered with metal hoods.

(xii)	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.	Review of Mining Plan including progressive Mine Closure Plan for period from 2022-23 to 2026-27 pertaining to Injepalli Limestone Mine is approved from the Indian Bureau of mines Bangalore vide 279/168/90/BNG/100 dtd 27.01.2022 Along with PMCP we have submitted the bank Guarantee for Rs.11,73,80,000/- (Rupees Eleven Crores Seventy-three Lakhs Eighty Thousand Only) for period from 01.04.2012 to 31.03.2027. Towards financial assurance. As per new rule 27(1) of Mineral Conservation and Development (Amendment) rules,2021 and rules of MCDR 2017 @ of Rs.5,00,000/- per Ha.
(xiii)	The project proponent shall engage a doctor who is trained in occupational health.	Doctor is appointed with qualification of MBBS & AFIH and also trained in ILO Classification as prescribed by DGMS. Apart from above Vasavadatta cement has facilities • Clinical Laboratory - • ECG - • Spirometry - • Audiometer- • Ultrasound - • Pulse Oximeter - • Nebulizer - • Autoclave - • Handling Biomedical waste -
General Conditions		
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry Of Environment & Forests.	Any change in the technology and scope of working will be implemented after a prior approval of MoEF
(ii)	No change in the calendar plan including excavation, quantum of mineral, limestone and waste shall be made.	No changes will be made in calendar plan including excavation, quantum of limestone handling.

(iii)	Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local Forest and wildlife department.	Vasavadatta cement having full-fledged horticulture department to look plantation activities in and around the Mines.
(iv)	Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO_2 and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and the frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Five stations in core zone and 7 stations in buffer zone are established in consultation with the State Pollution Control Board. Four permanent AAQ stations (02 in Core & 02 in Buffer zone is fixed) with the approval of KSPCB. The monitoring of ambient air quality is in accordance with the MoEF Notification, NAAQ Standards 2009
(v)	Data on ambient air quality (RPM, SPM, SO_2, NO_x) should be regularly submitted to the Ministry including its Regional Office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.	Environmental monitoring report from (April'2022 to September'2022) vide : VC/WS/MINE/VD/66A/2022-23/234. Dtd 19.10.2022 is submitted to Moefcc for Summer & Mosoon season 2022.
(vi)	Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	1) Drills are wet operated. 2) Water is sprayed regularly on Haul roads there are two Mist type water tankers are deployed this are also fitted with rain guns for spraying water on blasted heap before commencement of Loading operations. 3) One NIVIS water taker is deployed for suppression of respirable dust at loading point of LG Stock as well as on haul roads. 4) Static Water sprinklers are installed at the crusher hopper and Haul roads which are operated 5) The belt Curtain is installed in Hopper
(vii)	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers	1. Machineries are maintained in good condition by following scheduled and preventive 2. All the HEMM are provided with AC Cabins. 3. Tightening of fasteners is done regularly.

<table>
<tr><td></td><td>engaged in operations of HEMM, etc., shall be provided with ear plugs/muffs.</td><td>4. Persons engaged in blasting, drilling & HEMM operations are provided with ear Plugs / muffs.</td></tr>
<tr><td rowspan="3">(viii)</td><td rowspan="3">Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 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.</td><td>1. Oil & Grease separation tank is constructed & maintained to separate the oil & grease content from the water used for HEMM washing.</td></tr>
<tr><td>2. Water conforms to the standard prescribed under GSR 422 (E) General Standards for discharge of effluents inland surface water.</td></tr>
<tr><td><u>Water Quality of Mines Workshop effluent as per GSR-422(E) During During Monsoon Season 2022-23.</u>

Oil and Grease separation tank is constructed & maintained to separate the oil, grease content from the water used for Heavy Earth Moving Machineries washing. The Oil and grease trap Water confirms to the standards prescribed under GSR 422(E).

The wastewater is being properly collected & treated to the GSR 422 (E) standards. Presently, the wastewater from power plant is utilized for plantation purpose.

Regular monitoring of effluent water is carried out as per the standards under GSR422 (E) for four seasons in a year.

The latest Monitoring report for Winter Season2022-23 carried out in August '2022 as tabulated below:
<table>
<tr><th>S No</th><th>Characteristics</th><th>Max</th><th>Min</th><th>Stipulated</th></tr>
<tr><td>1</td><td>pH</td><td>7.93</td><td>7.89</td><td>5.5 to 9.0</td></tr>
<tr><td>2</td><td>TDS, mg/l</td><td>277</td><td>258</td><td>2100</td></tr>
<tr><td>3</td><td>Chlorides as CL, mg/l</td><td>43.8</td><td>37.8</td><td>1000</td></tr>
<tr><td>4</td><td>Flouride as F, mg/l</td><td>1.37</td><td>1.3</td><td>2</td></tr>
<tr><td>5</td><td>Sulphastes as SO4, mg/l</td><td>63.9</td><td>61.2</td><td>1000</td></tr>
<tr><td>6</td><td>Iron as Fe, mg/l</td><td>0.04</td><td>0.01</td><td>1</td></tr>
<tr><td>7</td><td>Colour</td><td colspan="2"><1.0</td><td rowspan="2">All efforts should be</td></tr>
<tr><td>8</td><td>Odour</td><td colspan="2">Objectionable</td></tr>
</table>
</td></tr>
</table>

(ix)	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.	1. Personal Protective equipment's are issued to the personnel working in dusty areas.
		2. Regular health education, training and information are given to workers on safety & Health aspects.
(x)	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.	1. Initial Medical examination of New appointed employees is done.
		2. Periodical Medical examination of Employees five year once for below 45 years age and Three years once for above 45 years of age is being carried out in accordance with the guidance of DGMS.
(xi)	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Environment cell is provided with well qualified Engineers holding P.G in Environment to carryout various activities like stack emission monitoring, Ambient air quality monitoring, Noise monitoring at plant boundaries and machineries, Report preparation and Compliances etc. The Environment Cell is set up under senior Executive of Head-Environment who is reporting directly to Chief Manufacturing Officer, for mines environmental monitoring is done by NABL accredited Lab i.e. Univesrsal Enviro associates. Hyderabad.
(xii)	The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Data submitted vide our letter no.VC: WS: ENV: CKJ: B82A/2007/1562 dated. July 19, 2007 regarding date of financial closure.
(xiii)	The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year-wise expenditure shall be reported to the Ministry and its Regional Office located at Bangalore.	The funds earmarked & year-wise expenditure reports for environmental protection measures for the financial year 2021-22 is being submitted regularly to MoEF, the latest report submitted Vide our letter no.VC/WS/MINE/UVR/2022-23/ Dated 20.06.2022 and funds are not diverted for any other purposes.

(xiv)	The project authorities shall inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Financial closures is submitted vide our letter no.VC:WS:ENV:CKJ:B82A/2007/1562 dated. July 19th, 2007 regarding date of financial closure.
(xv)	The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information /monitoring reports.	Vasavadatta cement Will provide cooperation to the officers of the Regional Office by furnishing the requisite data / information / monitoring reports. Six monthly compliance reports and the monitored data along with statistical interpretation will be submitted.
(xvi)	A copy of the clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom any suggestion / representation has been received while processing the proposal.	A copy of clearance is already submitted to concern Panchayat.
(xvii)	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office / Tehsildar`s Office for 30 days.	A copy of clearance has already been displayed as advised.
	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned within 7 days of the issue of the clearance	The EC copy is advertised in Two newspapers namely
		1) Deccan Herald.
		2) Prajavani.

(xviii)	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 may 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 located Bangalore.	Additionally we are hosting EC compliance reports in company web site **https://www.birlashakticement.com** on half yearly basis.
6	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.	Vasavadatta cement will comply if any additional condition stipulated on us.
7	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Vasavadatta cement will abide to the condition.
8	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Vasavadatta cement will abide to the condition.