



JK Cement WORKS

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No. JKCW/ENV./Panchagavi mine/57/17

Date- 19-11-2018

To,
Member Secretary
State Level Environmental Impact Assessment Authority (SEIAA)
Government of India
Room no. 706, 7th floor, 4th gate,
M.S. Building, Bangalore- 560001

Sub. – **Half Yearly Environmental Clearance Compliance Report for the Period from April 2018 to September 2018 for our Panchagavi Laterite Mine**

Ref: MoEF Letter No. SEIAA 107 MIN 2014 dtd. 24th December 2014

Dear Sir,

With reference to your above cited environmental clearance letter of our Panchagavi Laterite mine. We are sending here with enclosed point wise compliance report for the period from **April 2018 to September 2018** for your kind information and record please.

Thanking you

Yours faithfully
For Panchagavi Laterite mine

RBM Tripathi
(Unit Head)

Encl. – Compliance report, Socio-economic development report, six monthly ambient air quality monitoring and noise monitoring report

CC:

- 1- The Addl. Principal Chief Conservator of Forest (C) , Ministry of Environment & Forest, Regional Office (South Zone), 4th floor, E&F Wings, Kendriya Sadan, 17th Main Road, IInd Block, Koramangala, Bangalore
- 2- Chairman, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, New Delhi
- 3- The Secretary to Government, (Environment and Ecology), Department of Forest Environment & Ecology, Room No. 708, Gate 2, Multi Storied Building, Dr. Ambedkar Veedhi, Bangalore
- 4- The Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, No.1, Charanti Math Building, Shivalaya Road, Sadashiva Nagar, Belgaum.
- 5- Member Secretary, Karnataka Pollution Control Board, Church Street, Bangalore
- 6- Environmental Officer, Karnataka State Pollution Control Board, Plot No-1, Autonagar, Kanabargi Indl Area, Belgaum-590015



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Panchagavi Laterite Mine, Village- Panchagavi, Taluka-Ramdurg, District- Belgaum, Karnataka
Ref: - MoEF Letter No. SEIAA 107 MIN 2014 dtd. 24th December 2014
Compliance Report for the period from April 2018 to September 2018

Name of Project: **Panchagavi Laterite Mine M/s J.K. Cement Limited, Village- Panchagavi, Taluka- Ramdurg, District- Belgaum (Karnataka)**

Environmental Clearance to Panchagavi Laterite Mine (ML area 4.58 ha) at Village Panchagavi, Taluka- Ramdurg, District- Belgaum, Karnataka

S.N.	CONDITIONS	Compliance Status
A	Specific Conditions	
1	Quarry plan approved by the Department of Mines and Geology Shall be strictly implemented and shall not be operated beyond the validity period of the approved quarry plan.	Complied. Quarry plan approved by Indian Bureau of Mines is being implemented. However our mine is temporarily discontinued.
2	Baseline data on health profile of each of the workers shall be maintained.	Complied. Baseline data on health profile of each of the workers has been maintained.
3	PAs should get the health checkup done for the quarry workers on quarterly basis and submit report periodically.	Till the time, mine has been operated, we had maintained the record but now, our mine is temporarily discontinued.
4	The SEIAA, Karnataka reserves the right to withdraw the environmental clearance subject to any in the quarrying policy by the state government as may be applicable to this project	Agreed
5	This Environmental Clearance is co-terminus with the lease granted vide quarry lease under MM(D & R) Act 1957/KMMC RULES-1994	Agreed
6	Quarrying shall be undertaken strictly in accordance with provisions of MM (D&R) Act 1957/KMMC RULES-1994.	To be complied
7	All the conditions stipulated in the consent for establishment issued (if applicable) by the Karnataka State Pollution control Board should be effectively implemented.	To be complied
8	The quarrying operations shall not intersect ground water table. Prior approval of the SEIAA / Ministry of Environment & Forests and Central Ground Water Authority Shall be obtained for quarrying below water table.	Agreed. Our mine is temporarily discontinued
9	The topsoil if any should be stacked at earmarked site only and should not kept unutilized for a period more than 3 years. The topsoil should be used for reclamation and plantation.	Complying. Topsoil had stacked separately and used for plantation. However, now Our mine is temporarily discontinued

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10	Waste rock shall be stacked at earmarked site (s) only. The maximum height of the stack should not exceed 10m duly providing suitable terraces. The overall slope of the dump shall not exceed 27. A retention wall shall be built around the waste rock dump to prevent sliding.	To be complied. Our mine is temporarily discontinued.
11	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from quarry working area and rock dumps. The water so collected should be utilized for watering the haulage area, roads, green belt development etc., and the drains should be regularly de-silted particularly after monsoon and maintained properly.	To be complied. Our mine is temporarily discontinued.
12	Dimension of the retaining wall at the toe of dumps within the quarry to check run-off and siltation should be based on the rainfall data.	To be complied. Our mine is temporarily discontinued.
13	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, central Ground water Board within 3 months and report be submitted to the Authority.	To be complied. Our mine is temporarily discontinued.
14	Appropriate mitigation measures should be taken to prevent pollution of nearby water bodies in consultation with the state Pollution control Board.	To be complied. Our mine is temporarily discontinued.
15	The project proponent shall submit commitment from the competent authority for drawl of requisite quantity of water for the project before starting work on the project.	To be complied. Our mine is temporarily discontinued.
16	Suitable rain water harvesting measures on long-term shall be planned and implemented in consultation with Regional Director, Central Ground Water Board for complete rain water harvesting by constructing check dams/ converting quarried pits to rain water harvesting ponds.	Complied. We had submitted a letter to Concerned department. Our mine is temporarily discontinued.
17	Vehicular emissions should be kept under control and regularly monitored measured shall be taken for maintenance of vehicles used in quarrying operations and in transportation of blocks.	To be complied. Our mine is temporarily discontinued.
18	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to SEIAA Karnataka, Department of Environment and Ecology, Govt. of Karnataka and the Regional Office, MoEF, Bengaluru.	To be complied. Our mine is temporarily discontinued.
19	This environmental clearance does not confer any right to the proponent on the land proposed for quarrying until and unless quarry lease and all other statutory clearance are	Agreed

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	obtained from the respective department/agencies.	
20	The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed quarry.	Complied. No dwellings except 1 or 2 houses come under 1km zone.
21	Consent to operate if applicable shall be obtained from state pollution control Board prior to start of production from the quarry.	Agreed, We have obtained CFO from KSPCB via. Combined consent order no. 34/PCB/MIN/CFO/2015-16/157 on dated 08 May 2015.
22	Proper sanitary facilities should be installed for the colony/work place. Domestic waste generated should be disposed in a scientific manner. Proper first aid facilities and health care facilities should be provided for the labourers.	To be complied. Our mine is temporarily discontinued.
23	The project proponent shall take all precautionary measures during quarrying operation for conservation and protection of endangered fauna spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. The proponent shall contribute towards the cost of implementation of the plan and / or Regional Wildlife Management Plan for conservation of wild life. The amount so contributed shall be included in the project cost. A copy of the action plan may be submitted to the SEIAA, Department of Environment and Ecology, Govt. of Karnataka, the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Belgaum and the Regional Office, MoEF, Bengaluru within 3 months.	Complying. No wildlife available nearby the area. No endangered species spotted. The area is scanty. However, Our mine is temporarily discontinued.
24	The project proponent shall delineate Quarry Closure Plan/ exit protocol to rehabilitate the quarried out land to match its surrounding land use including removal, storage and reuse of waste rock from quarry area to cover reclaimed area. Post Quarry Land Use Plan with rehabilitation of, quarried out area (with Plan and Section) provided and submit to SEIAA.	To be complied. Our mine is temporarily discontinued.
25	Plantation monitoring programme during post project period for ensuring, survival and growth rate of plantation in reclaimed area.	To be complied.
26	A Final Quarry Closure Plan along with details of Corpus fund should be submitted to the SEIAA Karnataka,	Agreed and will be complied

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	Department of Environment and Ecology, Govt. of Karnataka and the Regional office, MoEF, Bengaluru 5 years in advance of final quarry closure for approval.	
27	Retention walls should be a minimum of 2.5 mtr height with base of 3 mtr.	To be complied. Our mine is temporarily discontinued.
28	Check dams and gully plugs along the smaller streamlets in the area, should be constructed to arrest the loose soil flow from the quarry area.	To be complied. Our mine is temporarily discontinued.
29	Particulars of dimensioned block production and dispatch shall be provided by the quarry owner yearly.	Not applicable
30	The infrastructure of transport roads should be improved collectively by the quarry owners of the area.	To be complied. Our mine is temporarily discontinued.
31	Link road from quarry site to main road shall be maintained and black topped by the project proponent	To be complied. Our mine is temporarily discontinued.
32	The quarry lease area to be properly demarcated using the lat-long coordinates and duly erecting 4 feet concrete/granite pillars on the ground.	Complied. Boundary pillars erected.
33	No quarrying shall be undertaken outside the lease area.	Agreed
34	The project Authorities shall maintain a margin 7.5 meters along the lease boundary.	Complied. A safety zone of 7.5 m has been maintained and plantation is being carried out.
35	The project authorities shall also earmark at least 5% of the total turnover of the project towards the corporate social responsibility and item-wise details along with the time bound action plan shall be prepared and submitted to the Authority.	Agreed. Our mine is temporarily discontinued. and will be complied
36	The project authority shall ensure that the quarry pits are well protected with proper fencing keeping the safety of local people and the animals.	Complied. Barbed wire fencing has been erected all along the lease boundary.
37	The project authority shall avoid stagnation of water in the quarry pits which would turn out to be mosquito breeding centers resulting in spreading of diseases such as malaria, dengue, etc.	Agreed. Our mine is temporarily discontinued.
38	Haulage approach road should not be through Panchagavi village till the main road is reached.	Complying. Panchagavi village is at a distance of 5km from the lease area. Hence no interference with the village. However, Our mine is temporarily discontinued.
B	GENERAL CONDITIONS	
1	No change in quarrying technology and scope of working	Agreed

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	should be made without prior approval of the SEIAA Karnataka.	
2	No change in the calendar plan including excavation, quantum of mineral and waste should be made.	Agreed
3	It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the MoEF, Govt. of india, New Delhi.	Complying
4	Data on ambient air quality (PM10, PM2.5, SO2, NOx) should be regularly submitted to the SEIAA Karnataka, Department of Environment and Ecology, Govt. of Karnataka, the Regional Director (Environment), Department of environment and Ecology, Government of Karnataka, Belgaum and the Regional office, MoEF, Bengaluru and the state pollution Control Board / Central pollution Control Board once in six Months.	Complying. Ambient air quality report are being sent to concerned regulatory authority. AAQM report has been enclosed as Annexure-1 .
5	Fugitive dust emission from all the sources should be controlled regularly. Water spray arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Agreed. Our mine is temporarily discontinued.
6	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc should be provided with earplugs/ muffs.	Agreed. Our mine is temporarily discontinued.
7	Waste water from the quarry should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th may 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharged of effluents.	Agreed. Our mine is temporarily discontinued.
8	Personnel working in dusty area should wear provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically i.e once in 3 months to observe any contractions due to exposure to dust and take corrective measures, if needed. Quarterly report in this regard should be submitted to the Department of Environment and Ecology, Govt. of Karnataka state pollution Control Board and the Regional office, MoEF, Bengaluru.	Agreed. Our mine is temporarily discontinued.
9	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. The Environment management committee should be constituted with one of the member representing	Complied, A separate environmental management cell with suitable qualified personnel has been set-up under the control of a senior

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	nearby village.	Executive, who reports directly to the Head of the organization.
10	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the SEIAA Karnataka, the Department of Environment and Ecology, Govt. of Karnataka, the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Belgaum and the Regional Office, MoEF, Bengaluru.	Agreed. Our mine is temporarily discontinued.
11	The Project authorities should inform the SEIAA Karnataka, Department of Environment and Ecology, Govt. of Karnataka, the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Belgaum and the Regional Office, MoEF, Bengaluru regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Agreed. We have obtained the consent to Establishment from Karnataka State Pollution Control Board via. letter no. 284 / PCB / MIN / CFE / 2014-15/1682 Dated 27 Feb. 2014 and Consent for Operation (CFO) via. Combined Consent Order No. 34/PCB/MIN/CFO/2015-16 / 157 Dated 8 May 2015
12	The Regional Office of MoEF, Bengaluru; the Department of Environment and Ecology , Govt. of Karnataka, the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Belgaum and the Karnataka state pollution Control Board shall monitor compliance of the stipulated conditions. The project authorities should extend full co-operation to the officer \s) of these offices by furnishing the requisite data/ information/ monitoring reports.	Agreed
13	The Project Proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the SEIAA Karnataka, Department of Environment and Ecology, Government of Karnataka, the Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Belgaum and the Regional Office, MoEF, Bengaluru; the central Pollution Control Board and the Karnataka State Pollution Control Board.	Agreed
14	A copy of the clearance letter will be marked to the concerned Panchayat Local NGO, if any, from whom suggestion/ representation has been received while processing the proposal.	Complied

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15	The Project Proponent should display the conditions prominently at the entrance of the project on a big panel board for the information of the public.	Agreed. Our mine is temporarily discontinued.
16	The Karnataka 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.	Complied
17	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 letter informing that the project has been accorded environment clearance and a copy of the clearance letter is available with the state pollution control Board and also at website of the Authority at http://www.seiaa.kar.nic.in and a copy of the same should be forwarded to the Department of Environment and Ecology, Government of Karnataka, The Regional Director (Environment), Department of Environment and Ecology, Government of Karnataka, Belgaum and the Regional office, MoEF, Bengaluru.	Complied. It was advertised in two local newspaper viz The Hindu and Vijayavani, Belgaum on dated 09-01-2015. A copy of the same has been submitted to Member Secretary, State Level Environmental Impact Assessment Authority (SEIAA), Bangalore, The Secretary to Government, (Environment and Ecology), Department of Forest Environment & Ecology, Bangalore, The APCCF, MoEF, Bangalore, The Regional Director (Environment), Department of Environment and Ecology, Belgaum, Member Secretary, KSPCB, Bangalore and Regional Officer, KSPCB, Bagalkot
18	Concealing factual data or submission of false/ fabricated data and 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.	Agreed
19	Any appeal against this environmental clearance shall lie with the national Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.	Agreed
20	The SEIAA or any other competent authority may alter / modify the above conditions or stipulate any further condition in the interest of environment protection.	Agreed
21	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	Agreed

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	(protection) Act, 1986.	
22	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 made there under.	Agreed

We hope, you will find our reply in order.

Thanks with regards,
Yours faithfully
For Panchagavi Laterite Mine, M/s J.K. Cement Works, Muddapur


RBM Tripathi
(Unit Head)

PANCHAGAVI LATERITE MINES, (KARNATAKA)

(Unit: Jk Cement Ltd.)

HALF YEARLY AAQM REPORT (SO₂, NO₂, PM₁₀, SPM) FROM APRIL-2018 TO SEPTEMBER-2018

(ALL VALUES IN MICROGRAMS / CUBIC METER)

Month	Sl. No.	Date	Week	SO ₂				NO ₂				PM ₁₀				SPM			
				Locations				Locations				Locations				Locations			
				A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
A P R I L	1	3.4.2018	1st	7.2	3.5	4.7	7.7	10.7	7.8	9.5	9.3	65.2	62.8	58.6	54.8	179.2	167.1	162.8	162.04
	2	6.4.2018		6.5	7.0	5.5	5.5	7.5	10.8	7.7	10.5	57.6	68.0	69.8	61.7	160.4	172.6	172.8	157.95
	3	10.4.2018	2nd	4.5	5.5	6.5	3.5	7.5	9.5	8.3	7.2	60.1	47.8	64.3	70.1	163.7	151.0	172.1	178.59
	4	13.4.2018		6.3	3.5	3.5	4.5	9.7	7.5	6.7	10.8	52.1	59.4	47.2	63.7	165.8	164.3	159.5	168.46
	5	17.4.2018	3rd	3.5	4.5	6.5	6.0	5.5	7.5	7.2	8.2	47.6	62.2	55.7	58.9	152.8	169.8	160.8	162.87
	6	20.4.2018		4.5	6.5	4.2	6.7	8.5	8.5	6.8	7.8	68.0	55.4	50.7	61.9	173.9	158.8	159.3	167.50
	7	24.4.2018	4th	7.0	6.7	7.0	7.5	10.2	9.5	10.8	8.5	71.1	43.3	66.0	52.0	176.4	148.3	173.5	155.42
	8	27.4.2018		6.3	5.5	6.0	5.5	8.5	7.5	9.3	7.5	41.3	61.0	58.9	58.4	144.0	169.8	163.9	164.93
M A Y	1	1.5.2018	1st	4.5	5.5	6.5	7.5	9.5	7.5	8.5	12.5	75.1	67.2	64.8	69.0	181.5	172.0	172.0	177.14
	2	4.5.2018		6.5	7.5	7.0	7.5	10.7	10.7	12.5	10.2	62.3	70.6	71.2	55.6	167.0	178.1	178.1	161.10
	3	8.5.2018	2nd	5.5	8.3	8.5	8.7	9.2	10.2	9.3	11.8	70.2	64.2	54.7	65.3	176.5	167.2	167.2	172.25
	4	11.5.2018		3.5	9.7	6.5	6.5	7.8	11.3	11.5	7.5	52.5	56.2	80.0	74.0	155.6	161.2	161.2	179.11
	5	15.5.2018	3rd	7.5	7.5	7.0	8.3	9.8	9.2	9.7	9.7	61.4	60.1	60.1	80.2	165.3	167.5	167.5	187.72
	6	18.5.2018		7.3	6.7	5.2	5.5	9.0	8.0	7.0	9.3	74.2	67.5	47.6	58.5	181.4	172.1	172.1	161.21
	7	22.5.2018	4th	9.0	7.5	7.5	7.5	11.7	11.8	8.5	9.8	69.9	57.8	54.2	63.5	175.5	160.9	160.9	168.35
	8	25.5.2018		6.7	5.8	7.5	7.5	11.2	9.2	10.8	11.8	63.6	62.7	63.9	71.9	168.1	172.1	172.1	178.20
	9	29.5.2018		5.5	7.5	6.5	6.8	7.5	8.5	10.5	12.8	69.2	69.1	57.6	67.5	176.0	175.4	175.4	171.30
J U N	1	1.6.2018	1st	6.7	6.7	6.5	7.5	8.2	8.5	9.5	8.8	64.8	62.2	75.9	58.5	167.1	166.4	179.4	162.85
	2	5.6.2018		5.5	5.7	7.7	4.5	7.5	7.5	8.5	6.7	79.8	73.0	67.6	63.3	183.4	175.7	172.2	167.34
	3	8.6.2018	2nd	7.5	7.8	8.8	5.5	8.8	10.8	10.0	7.3	67.8	46.8	59.4	68.6	170.3	149.2	163.9	173.30
	4	12.6.2018		8.5	5.5	7.5	4.7	9.5	8.3	8.7	5.3	71.2	51.1	65.5	58.0	175.6	156.4	173.4	161.69
	5	15.6.2018	3rd	6.5	6.5	6.7	6.5	7.5	7.5	8.2	8.5	62.6	64.4	57.3	54.1	169.0	169.1	163.3	162.63
	6	19.6.2018		5.7	5.3	6.5	7.3	7.5	8.3	7.5	9.3	52.4	54.4	56.9	63.9	158.7	158.1	159.8	167.91
	7	22.6.2018	4th	7.5	7.5	7.5	7.0	8.2	9.5	10.0	9.0	69.8	64.4	60.1	51.3	175.5	171.7	171.2	164.20
	8	26.6.2018		6.7	7.5	6.5	6.5	9.3	10.8	7.5	8.5	57.8	60.3	67.9	60.7	161.0	166.3	170.9	168.57
	9	29.6.2018		5.5	4.0	3.5	4.3	7.5	6.5	6.5	8.0	69.3	73.4	70.0	75.8	177.7	176.0	173.1	180.96
J U L Y	1	3.7.2018	1st	5.5	6.7	6.5	7.5	7.5	7.5	9.5	8.8	73.1	67.7	70.4	67.2	177.9	172.5	188.1	172.36
	2	6.7.2018		6.5	5.0	7.7	4.5	8.5	7.3	8.5	6.7	54.8	30.1	56.1	55.9	159.8	135.6	164.4	160.54
	3	10.7.2018	2nd	6.0	3.5	8.8	5.5	7.5	5.0	10.0	7.3	43.2	42.1	42.1	24.3	151.5	147.8	135.6	133.39
	4	13.7.2018		3.7	4.2	7.5	4.7	6.5	6.5	8.7	5.3	52.5	40.0	52.2	40.6	161.4	143.5	159.1	154.41
	5	17.7.2018	3rd	4.5	3.5	6.7	6.5	5.8	6.5	8.2	8.5	48.8	31.1	61.6	37.0	156.8	138.9	166.4	144.17
	6	20.7.2018		5.8	6.5	6.5	7.3	6.8	8.3	7.5	9.3	50.4	40.5	53.8	45.3	157.5	146.2	158.2	153.23
	7	24.7.2018	4th	2.2	2.8	7.5	7.0	4.3	5.5	10.0	9.0	58.9	53.1	57.6	53.8	164.1	160.8	163.4	157.81
	8	27.7.2018		3.5	4.5	6.5	6.5	11.5	7.5	7.5	8.5	64.3	49.7	62.8	41.8	172.2	153.8	166.2	150.23
	9	31.7.2018		3.0	3.0	3.5	4.3	4.5	6.5	6.5	8.0	51.7	53.9	41.0	55.3	155.9	157.2	146.0	163.35
A U G U S T	1	3.8.2018	1st	5.3	5.5	5.5	5.7	7.5	9.5	8.3	7.5	60.2	47.3	50.0	56.7	165.4	152.0	155.3	160.03
	2	7.8.2018		6.7	6.7	6.7	4.0	9.5	10.3	7.8	9.5	55.1	42.0	58.1	69.5	161.4	149.0	163.4	167.19
	3	10.8.2018	2nd	4.7	3.8	3.8	6.0	10.8	7.8	8.5	9.0	50.9	59.9	41.8	53.7	154.1	161.0	150.5	160.55
	4	14.8.2018		7.7	4.5	5.3	7.5	10.8	7.5	10.3	9.5	60.2	64.6	65.8	57.8	168.0	169.5	172.7	163.43
	5	17.8.2018	3rd	5.5	5.5	6.5	6.3	10.5	8.7	8.2	8.3	47.8	58.2	55.4	46.6	153.5	163.5	161.9	156.87
	6	21.8.2018		3.5	3.7	3.2	5.8	7.2	7.7	5.3	7.0	23.1	35.4	39.2	29.1	127.7	141.4	144.2	134.26
	7	24.8.2018	4th	6.5	6.5	6.2	4.5	8.8	7.7	7.5	7.8	34.0	45.3	47.9	37.7	141.3	148.1	156.3	142.39
	8	28.8.2018		4.0	3.5	3.8	3.5	6.0	6.7	6.3	6.0	43.2	55.1	54.0	32.2	147.9	160.9	157.5	136.98
	9	31.8.2018		4.0	2.5	4.5	3.5	7.5	6.5	7.8	8.5	51.2	40.7	47.4	46.2	157.3	145.0	152.5	152.08
S E P T E M B E R	1	4.9.2018	1st	5.3	5.5	5.5	5.7	7.5	9.5	8.3	7.5	60.2	47.3	50.0	56.7	165.4	152.0	155.3	160.03
	2	7.9.2018		6.7	6.7	6.7	4.0	9.5	10.3	7.8	9.5	55.1	42.0	58.1	69.5	161.4	149.0	163.4	167.19
	3	11.9.2018	2nd	4.7	3.8	3.8	6.0	10.8	7.8	8.5	9.0	50.9	59.9	41.8	53.7	154.1	161.0	150.5	160.55
	4	14.9.2018		7.7	4.5	5.3	7.5	10.8	7.5	10.3	9.5	60.2	64.6	65.8	57.8	168.0	169.5	172.7	163.43
	5	18.9.2018	3rd	5.5	5.5	6.5	6.3	10.5	8.7	8.2	8.3	47.8	58.2	55.4	46.6	153.5	163.5	161.9	156.87
	6	21.9.2018		3.5	3.7	3.2	5.8	7.2	7.7	5.3	7.0	23.1	35.4	39.2	29.1	127.7	141.4	144.2	134.26
	7	25.9.2018	4th	6.5	6.5	6.2	4.5	8.8	7.7	7.5	7.8	34.0	45.3	47.9	37.7	141.3	148.1	156.3	142.39
	8	28.9.2018		4.0	3.5	3.8	3.5	6.0	6.7	6.3	6.0	43.2	55.1	54.0	32.2	147.9	160.9	157.5	136.98
Half Yearly Avg.				5.7	5.5	6.1	6.0	8.5	8.3	8.5	8.6	56.8	54.8	57.2	55.3	162.6	159.8	163.5	160.9
Half Yearly Min.				2.2	2.5	3.2	3.5	4.3	5.0	5.3	5.3	23.1	30.1	39.2	24.3	127.7	135.6	135.6	133.4
Half Yearly Max.				9.0	9.7	8.8	8.7	11.7	11.8	12.5	12.8	79.8	73.4	80.0	80.2	183.4	178.1	188.1	187.7

PANCHAGAVI LATERITE MINES, (KARNATAKA)

(Unit : J.K. Cement Ltd.)

Half Yearly Fugitive Emission Monitoring Report of Panchagavi mines for the month of April-2018 to September- 2018

Sl. No.	MONTH/YEAR	SPM ($\mu\text{g}/\text{m}^3$)				
		Loading Area	Drilling Area	Haulage Area	Waste Dumping Site	Service Road
1	April-18	681.9	581.1	619.1	608.2	629.4
2	May-18	665.4	708.3	588.2	581.1	687.9
3	June-18	584.2	566.8	595.3	641.8	791.0
4	July-18	708.0	613.4	718.6	773.3	663.8
5	August-18	824.9	700.1	754.0	791.0	864.3
6	September-18	422.7	572.2	770.7	816.6	623.4
	Minimum	422.74	566.80	588.19	590.45	623.44
	Maximum	824.90	708.33	770.66	816.63	864.32
	Average	647.86	623.66	674.32	702.01	709.96

PANCHAGAVI LATERITE MINES, (KARNATAKA)

(Unit of J.K. Cement Ltd.)

PM 2.5 MONITORING REPORT FROM APRIL-2018 TO SEPTEMBER-2018

Site	Month	Date	Monitoring Location	Parameter PM 2.5 (µg/m ³)
Panchagavi Mine	Apr-18	10.4.2018	A	38.4
		13.4.2018	B	40.8
		17.4.2018	C	35.2
		20.4.2018	D	30.1
Panchagavi Mine	May-18	08.5.2018	A	36.5
		11.5.2018	B	42.8
		15.5.2018	C	37.4
		18.5.2018	D	50.1
Panchagavi Mine	Jun-18	08.6.2018	A	35.6
		12.6.2018	B	40.8
		15.6.2018	C	38.4
		19.6.2018	D	30.6
Panchagavi Mine	Jul-18	10.7.2018	A	31.4
		13.7.2018	B	38.5
		17.7.2018	C	36.6
		20.7.2018	D	34.5
Panchagavi Mine	Aug-18	07.8.2018	A	31.8
		10.8.2018	B	32.6
		14.8.2018	C	30.7
		17.8.2018	D	34.4
Panchagavi Mine	Sep-18	04.9.2018	A	33.8
		07.9.2018	B	36.2
		11.9.2018	C	38.6
		14.9.2018	D	42.7
Minimum				30.1
Maximum				50.1
Average				36.60

PANCHAGAVI LATERITE MINES, (KARNATAKA)

(Unit: J.K. Cement Ltd.)

Noise monitoring report of Panchagavi mines (Core zone) for the month of April-2018 to September-2018

Sl.No.	Time	Month	Panchagavi mines boundary	Panchagavi mines cabin	Panchagavi mines Near loading	Panchagavi mines Service Road	Excavator
1	Day	Apr-18	45.8	40.7	41.2	45.8	50.1
	Night		34.5	33.6	30.2	30.1	
2	Day	May-18	46.2	44.7	45.6	50.4	52.5
	Night		34.5	32.8	34.7	35.9	
3	Day	Jun-18	45.6	35.8	47.2	43.6	51.7
	Night		34.4	28.5	35.4	32.7	
4	Day	Jul-18	44.5	36.8	47.2	35.5	52.2
	Night		35.6	29.2	36.7	30	
5	Day	Aug-18	41.6	35.5	46.2	45.5	51.8
	Night		34.5	28.4	36.1	30.8	
6	Day	Sep-18	42.5	36.7	40.7	38.5	52.1
	Night		30.8	30.5	32.2	31.8	
Average		Day	44.37	38.37	44.68	43.22	51.73
		Night	34.05	30.50	_	31.88	#DIV/0!
Minimum		Day	41.60	35.50	40.70	35.50	50.10
		Night	30.80	28.40	30.20	30.00	0.00
Minimum		Day	46.20	44.70	47.20	50.40	52.50
		Night	35.60	33.60	36.70	35.90	0.00