



JSW Cement Limited

Ankur Complex
Jambedia, P.O. : Saiyedpur via Salboni
Paschim Medinipur, Pin-721147
West Bengal
Phone : 03222 270100
Website : www.jsw.in

Ref. No. **JSWCL/SALBONI/EC/Comp-II/2021-2022**

23rd May 2022.

To,

Additional PCCF(c),

Ministry of Environment, Forest and Climate Change.

Regional Office (Eastern Zone), A/3

Chandrasekharpur,

Bhubaneswar- 751023, Odisha.

Sub: - Submission of Six Monthly Compliance Report against Stipulated Conditions of EC Letter

Ref: - Environmental Clearance Letter issued by SEIAA, West Bengal vide Letter No. - 2015/EN/T-II-1/002/2017 dated 07.09.2017.

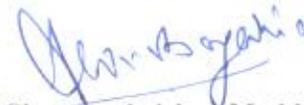
Sir,

With reference to above subject, hereby we are submitting the Six Monthly Compliance report for the Period of October 2021-March 2022 against Stipulated Conditions of EC Letter for our Proposed Expansion of Cement Grinding Unit from 2.4 MTPA to 3.6 MTPA and 2X18 MW CPP at Vill-Salboni, Dist- Paschim Medinipur, West Bengal.

This is for your kind reference and necessary record keeping purpose.

Thanks and Regards,

For JSW Cement Limited


Sivaramakrishna Maddipoti

Sr. Vice President (Plant Head)



CC to:

- Chief Environmental Officer and Member Secretary, SEIAA, West Bengal.
- The Member Secretary, West Bengal Pollution Control Board.
- Regional Office, West Bengal Pollution Control Board, Haldia.

Regd. Office : JSW Centre
Bandra Kurla Complex
Bandra (East), Mumbai- 400 051
CIN : U26957MH2006PLC160839
Tel : 022 42861000

**ENVIRONMENT CLEARANCE COMPLIANCE STATUS
REPORT OF CEMENT PLANT & POWER PLANT
PERIOD: Oct 2021 TO March 2022**



**JSW Cement Limited, Salboni
(Village- Salboni, P.O. Saiyedpur, Dist- Paschim Medinipur)
West Bengal -721147.**



Compliance Report

Name of Project	:	Environmental Clearance for the proposed expansion of cement grinding unit from 2.4 to 3.6MTPA and 2x18 MW CPP at Vill-Salboni, Dist –Paschim Medinipur, West Bengal by M/s. JSW Cement Limited.
Clearance letter No.	:	2015/EN/T-II-I/002/2017
Period of Compliance Report	:	October -2021 to March-2022

Compliance report of conditions stipulated in the Environment clearance

ENVIRONMENT CLEARANCE NO: 2015/EN/T-II-I/002/2017 Dated:07.09.2017

Present Status of the project: Expansion of Cement Plant is under progress and Construction of only 1 X 18 MW CPP is completed. The manufacture process involves only grinding of cement clinker with fly ash/slag and gypsum with clinker being procured from outside.

A. Specific Conditions

Sl.No.	CONDITIONS	COMPLIANCE STATUS
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i	<p>The gaseous emissions from various units should conform to the load/ mass based standards prescribed by the Ministry of Environment & Forests and the State Pollution Control Board from time to time. At no time the emission level should go beyond the prescribed standards.</p>	<p>The gaseous emission from all the units conform to the load/mass based standards prescribed by the MoEF & CC.</p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Stack connected to process</th> <th>Load / Mass based concentration of Particulate Matter Kg/Ton of Product for grinding units and Kg/MW for Captive Power Plant</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CPP (1x18 MW)</td> <td>0.2106</td> </tr> <tr> <td>2</td> <td>Roller Press - 1 & 2</td> <td>0.0095</td> </tr> <tr> <td>3</td> <td>Roller Press– 3 & 4</td> <td>0.0142</td> </tr> </tbody> </table> <p>Emissions from all the stacks are within the given permissible limits.</p> <p>Continuous emission monitoring system (CEMS) were installed at all mentioned stacks to send the continuous emission data to CPCB/WBPCB server (Photograph no.-1, Showing CEMS graph). Appropriate mitigation measures were taken to keep the</p>	Sl. No.	Stack connected to process	Load / Mass based concentration of Particulate Matter Kg/Ton of Product for grinding units and Kg/MW for Captive Power Plant	1	CPP (1x18 MW)	0.2106	2	Roller Press - 1 & 2	0.0095	3	Roller Press– 3 & 4	0.0142
Sl. No.	Stack connected to process	Load / Mass based concentration of Particulate Matter Kg/Ton of Product for grinding units and Kg/MW for Captive Power Plant												
1	CPP (1x18 MW)	0.2106												
2	Roller Press - 1 & 2	0.0095												
3	Roller Press– 3 & 4	0.0142												



standard for all the time.

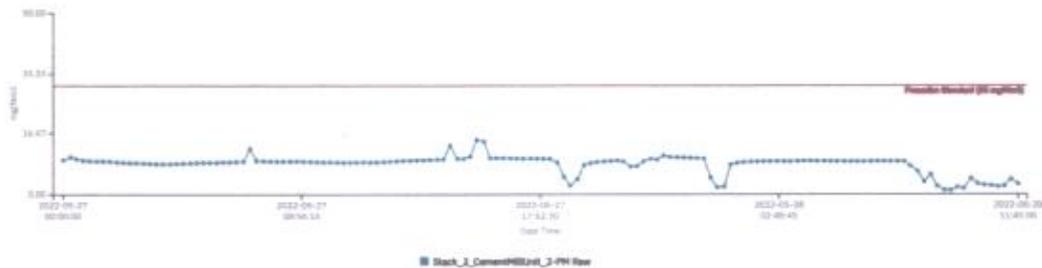
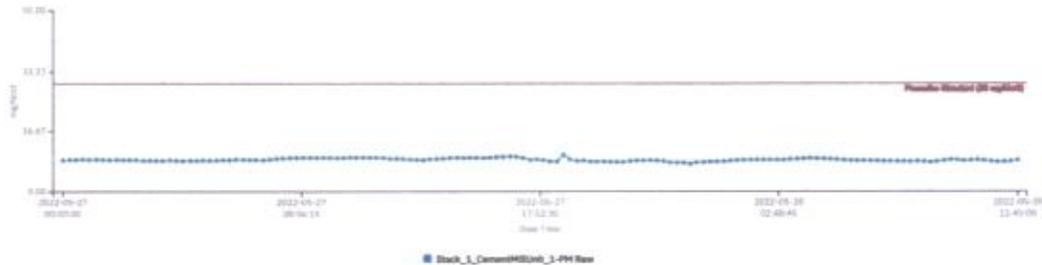
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Custom Report

SiteName: M/s JSW Cement Limited- Salboni

Created by: JSWK, Created On: 28/05/2022



(Photograph-1, Showing Online continuous emission monitoring system graph)

ii

Cement grinding shall be carried out in closed cement mill. Provision of dust extraction and pollution control systems along with minimum stack height of 50 M from G.L. should be provided for control of emission from slag mill and hot gas generator Highly Efficient Cyclone Separators, Pulse Jet Bag Filters & ID fans should be provided for Raw Material Handling Section, Ball Mill, Silo, Packing Section. Stack emission shall be monitored at regular intervals and records maintained. The stack emission should not exceed 30 mg/Nm³. For CPP boiler ESP of adequate design and capacity and along with minimum stack height of 30 m from G.L. should be provided. The stack emission should not exceed 30 mg/nm³.

Cement/ slag grinding is being done in closed circuit Roller Press mills.

Each grinding unit is attached with stack of adequate height which is connected to highly efficient bag houses to control dust emission.

High efficiency cyclone separators were attached to each Roller Press mill. Pulse Jet Bag Filters were installed at material transfer points in Raw Material, Grinding, Packing sections.

Stack emission is within prescribed limit (Table-1 & Bar graph-1).

Stack monitoring is being done regularly from NABL accredited lab and results were found within permissible limit.

High efficiency ESP were installed in CPP having adequate stack height (Photograph no. 2 & 3).

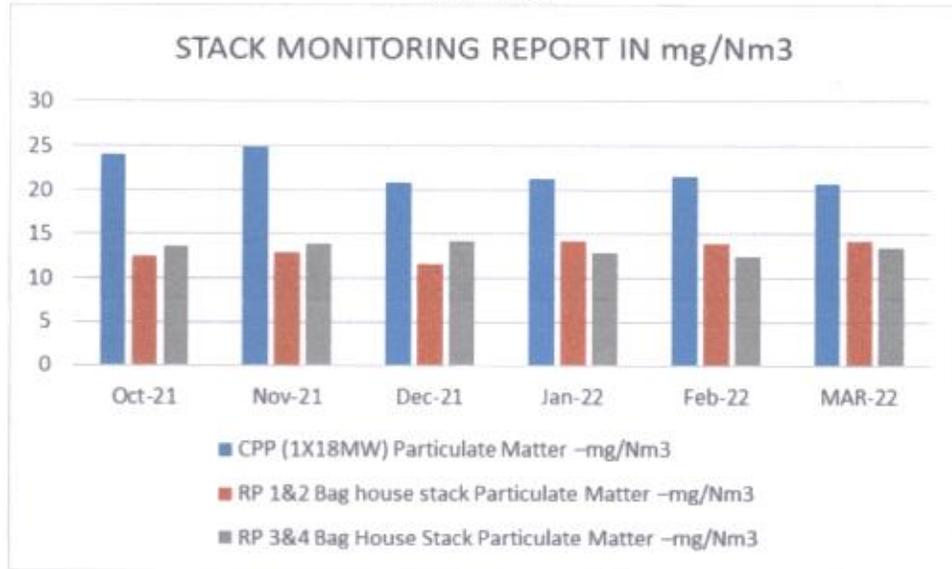
Stack Emission Monitoring Report (October -2021 to March-2022)

Stack	Parameters	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Avg
CPP (1X18MW)	Particulate Matter – mg/Nm ³	24.0	24.9	20.9	21.3	21.6	20.7	22.23

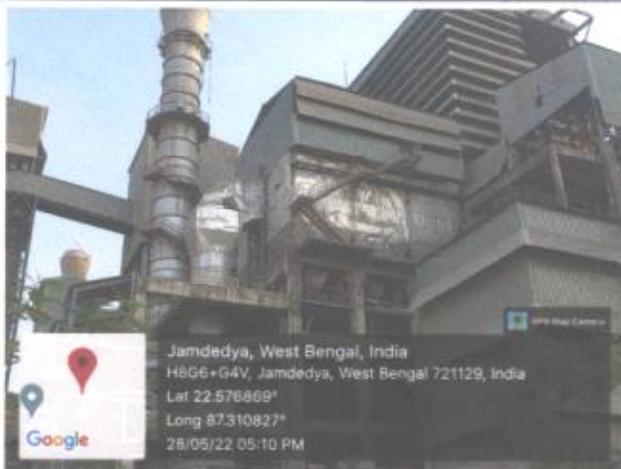


house stack	Matter – mg/Nm3							
RP 3&4 Bag House Stack	Particulate Matter – mg/Nm3	13.6	13.9	14.2	12.9	12.4	13.5	13.41

TABLE-1



BAR GRAPH-1



BAG HOUSE ATTACHED TO GRINDING UNIT : (Photograph-2)



ESP ATTACHED TO CPP (Photograph-3)



iii	<p>Regular monitoring of the ambient air quality shall be carried out in and around the plant and records shall be maintained. All care to be taken to maintain the ambient air quality standards as per GSR 826 (E) dated 16.11. 2009. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NO2-are anticipated in consultation with the SPCB. Data on ambient air quality and stack Emission shall be regularly submitted to the SEIAA and the SPCB once in six months.</p>	<p>Regular monitoring of the ambient air quality is being carried out every month in six locations in and around the plant by NABL accredited lab and records are maintained (Table-2 & Graph-2)</p> <p>To maintain the ambient air quality, we run every day truck mounted automated road sweeping machine and cover the raw material yards with tarpaulin.</p> <p>We have installed one continuous ambient air quality monitoring station with consultation with SPCB.</p> <p>Monitoring reports of stack and ambient air quality are being submitted to SEIAA and SPCB every month.</p>
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Ambient Air Quality Monitoring Report (October -2021 to March-2022)

Location	Parameters	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Average
Near Project Office	PM 10 in µg/m ³	39	44	48	42	38	36.5	41.25
	P.M. 2.5 in µg/m ³	17	19	24	18	14	12.9	17.48
	SO ₂ in µg/m ³	12	14	16	12	10	12	12.66
	NO _x in µg/m ³	26	28	32	28	26	24	27.33
	CO in mg/m ³	0.26	0.25	0.26	0.21	0.19	0.22	0.23
Near Staff Colony	PM 10 in µg/m ³	48	47	46	44	42	40.1	44.51
	P.M. 2.5 in µg/m ³	22	20	22	20	19	22.5	20.91
	SO ₂ in µg/m ³	14	18	20	14	15	16	16.16
	NO _x in µg/m ³	28	32	36	30	28	26	30
	CO in mg/m ³	0.31	0.36	0.38	0.33	0.26	0.28	0.32
Near Labour Colony	PM 10 in µg/m ³	42	40	36	37	40	43.2	39.7
	P.M. 2.5 in µg/m ³	12	18	16	17	20	24.8	17.96
	SO ₂ in µg/m ³	13	12	14	12	14	16	13.5
	NO _x in µg/m ³	28	26	24	26	30	32	27.66
	CO in mg/m ³	0.24	0.23	0.22	0.19	0.32	0.34	0.25
Near Railway siding	PM 10 in µg/m ³	47	49	44	47	45	46.7	46.45
	P.M. 2.5 in µg/m ³	24	23	21	24	23	24.3	23.21
	SO ₂ in µg/m ³	20	17	15	16	18	15	16.83
	NO _x in µg/m ³	36	30	29	31	36	38	33.33
	CO in mg/m ³	0.47	0.42	0.32	0.35	0.34	0.41	0.38
Near CPP Area	PM 10 in µg/m ³	44	47	47	45	49	48.2	46.7
	P.M. 2.5 in µg/m ³	20	25	23	22	24	23.9	22.98
	SO ₂ in µg/m ³	22	24	22	18	17	18	20.16
	NO _x in µg/m ³	38	36	39	37	39	34	37.16
	CO in mg/m ³	0.33	0.36	0.37	0.38	0.35	0.44	0.37
Near Godapisal Village	PM 10 in µg/m ³	36	38	34	36	34	33.6	35.26
	P.M. 2.5 in µg/m ³	16	16	14	16	14	15.3	15.21
	SO ₂ in µg/m ³	12	13	12	11	12	14	12.33
	NO _x in µg/m ³	26	28	24	25	26	25	25.66
	CO in mg/m ³	0.29	0.22	0.20	0.16	0.16	0.21	0.20



Ambient Air Quality Monitoring Report



GRAPH-2

IV

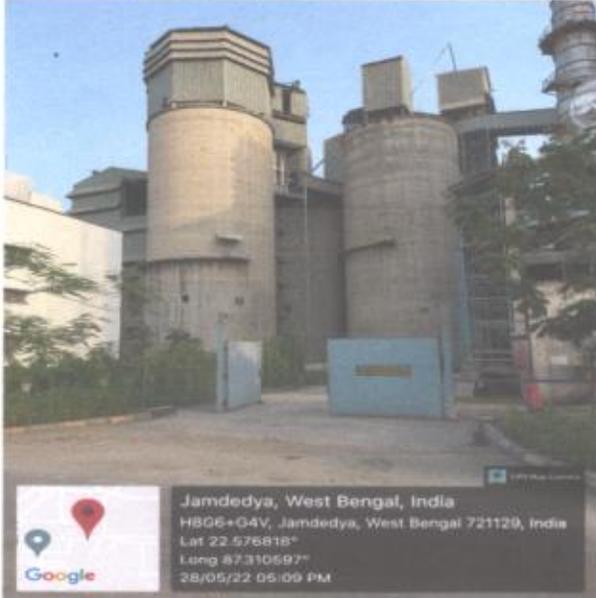
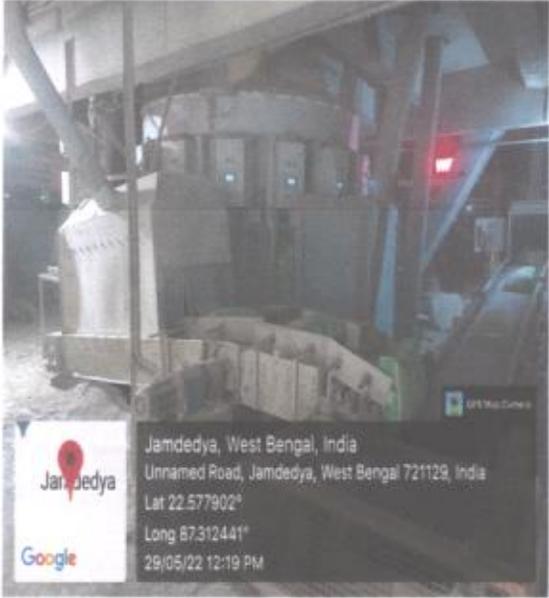
The unit shall install CAAQMS for the project.

The unit has installed one CAAQMS.
(Photograph no.-04)



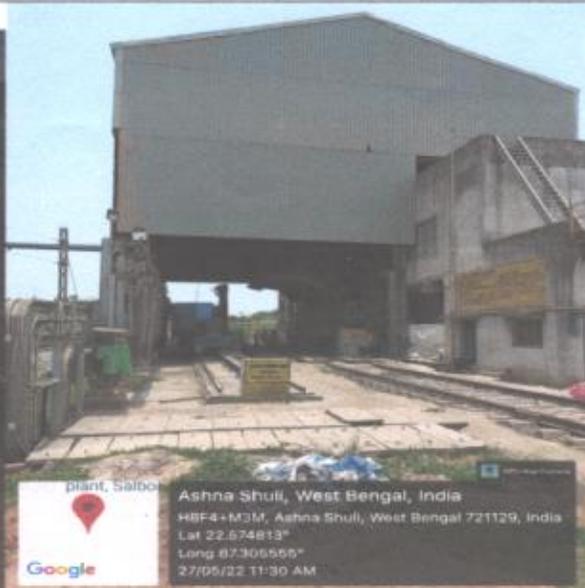
**AMBIENT AIR QUALITY MONITORING STATION
(Photograph- 04)**



V	<p>Finished cement should be collected in silo and packaging should be done through pneumatically controlled system. Suction system should be installed at packaging section to minimize fugitive emission.</p>	<p>The unit has installed 6- Silo for collecting finished products (photograph no.-05 attached below) and packaging is done through pneumatically controlled system. Suction system are installed at packing plant to minimize fugitive emission (Photograph no-06).</p>
	 <p style="text-align: center;">Photograph-05</p>	 <p style="text-align: center;">Photograph-06</p>
VI	<p>All vibrating screens, storage bins will be adequately covered. Covered storage yards shall be provided for raw materials. Closed unloading of raw materials and closed conveyor belt for transportation with bag filter at transfer points should be provided. Suction head should be provided at all transfer points.</p>	<p>The unit has adequately covered all the vibrating screens and storage bins (Photographs no. -07).</p> <p>The unit has dedicated covered storage yard for its different raw materials (Photographs no.-08 & 09).</p> <p>The unit has installed automated closed wagon tippler for unloading raw materials with suction hoods, which reduces the fugitive emission (Photograph no. -10 &11). Further the material is transported to grinding unit through closed conveyor (Photographs no. -12 &13).</p> <p>The unit has installed suction heads are in all transfer points which are attached to high efficient bag filters (Photographs no.-13).</p>




 Jamdedya, West Bengal, India
 HBG5+CXJ, Jamdedya, West Bengal 721129, India
 Lat 22.576307°
 Long 87.30869°
 28/05/22 07:15 PM




 Ashna Shuli, West Bengal, India
 H8F4+M3M, Ashna Shuli, West Bengal 721129, India
 Lat 22.574813°
 Long 87.305555°
 27/05/22 11:30 AM

(Photograph-07) VIBRATING SCREENS (Photograph-10) WAGON TIPPLER




 Ashna Shuli, West Bengal, India
 H8F4+M3M, Ashna Shuli, West Bengal 721129, India
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**WAGON TIPPLER
(Photograph-11)**

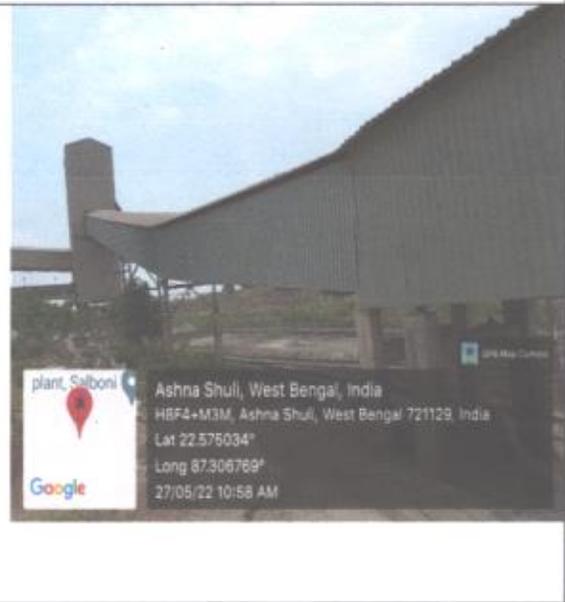
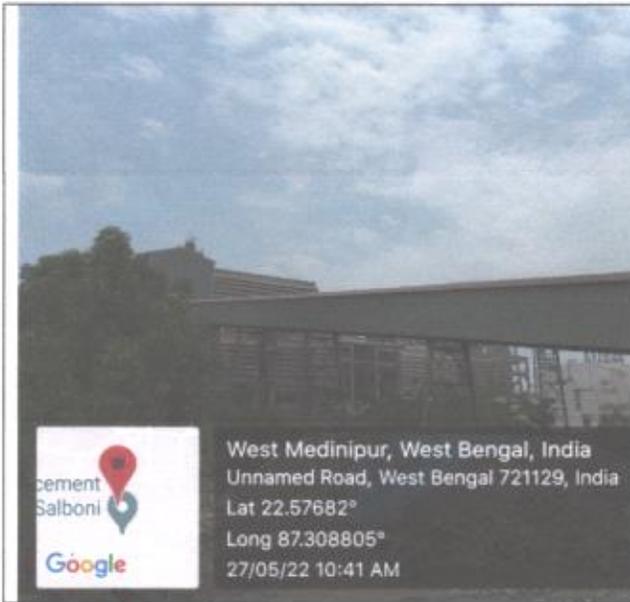




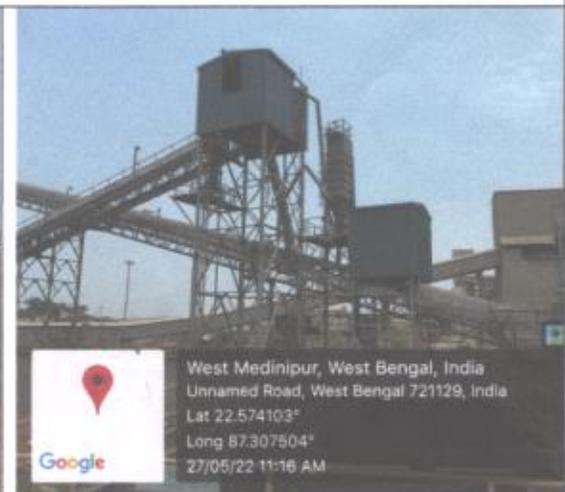
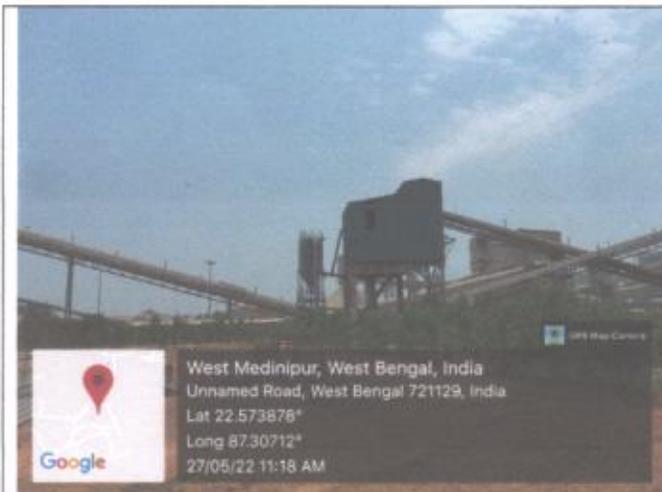
(Photograph-08) COAL SHED



(Photograph-09) GYPSUM SHED

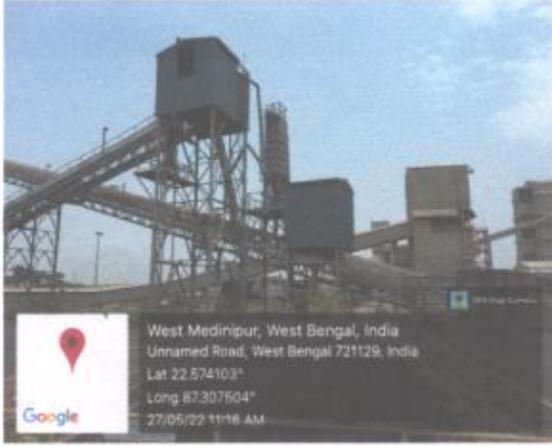


Photograph-12



Photograph-13



VII	<p>Adequate dust suppression and extraction system should be provided in material storage areas, material unloading and transfer points for controlling fugitive emission. Fugitive dust emissions from ball mill and storage area shall be collected in bag filters and recycled back to the process. Water sprinkling arrangement shall be made in the raw material stock yard and other high dust potential areas.</p>	<p>The unit has installed adequate dust suppression and extraction systems in material storage, loading and unloading and also at the transfer points have been provided for controlling fugitive emissions (Photographs no.-14 & 15). Dust collected in bag filters of ball mill will be automatically recycled back to the process. Water sprinkling arrangement were made in the raw material stock yard to control fugitive dust emissions.</p>
	 <p>Suction head at conveyor belts (Photograph-14)</p>	 <p>Suction attached with Bag filters at transfer point (Photograph-15)</p>
VIII	<p>Water required for proposed expansion shall be met from ground water supply as proposed. Groundwater shall be abstracted as per permission of the competent authority as per The West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.</p>	<p>Water requirement is met from permitted ground water extraction. Permission for Groundwater abstraction from six numbers of bore wells have been obtained from the State Water Investigation Department, vide permit No. P1428445003490000001TSE, P1428445003490000002TSE, P1428445003490000003TSE dated 16.10.2015 and P1428446000040000001TSE, P1428445003490000001TSE and P1428456001940000001TSE dated 03.11.2017 respectively. (Photographs no-16)</p>



FORM 4

[See Rules 9(3) and 10(5)]

(EMBLEM OR HOLOGRAM OF THE CONCERNED AUTHORITY)

PERMIT FOR SINKING OF NEW WELL

[U/S 7(3)(b) / 7(4)(b) / 7(5)(a) of the West Bengal Ground Water Resources (Management, Control and Regulation) Act 2003.]

007573

4029

PERMIT NO. P.1428445 00349 0000003TSE

1. (a) Name of the applicant (user) : Shri. M/s JSW Cement Ltd.
- (b) Son/Daughter of : N.A.
- (c) Address of the applicant : JSW Cement Ltd. Dykes Complex; Vill - Jambadia; Saltora; Small Farmer/Marginal Farmer/Other
- (d) Category of farmer (Please tick) (in case of irrigation well) : Small Farmer/Marginal Farmer/Other
- (e) Serial No. of application Form and date of submission : BP/20149; 21-99 dt. 09.09.15
- (f) Specimen signature of the user : 
2. Location particulars—
- (a) District : West Midnapore
- (b) Block, Mouza, J. L. No., Plot No. : Saltora; Jambadia; 445, 349
- (c) Municipality/Corporation :
Ward No./Borough No., Holding No. :
3. Particulars of the proposed well and pumping device—
- (a) Type of the well : T.W
- (b) Approx. depth of the well (m) : 150m
- (c) Purpose of the well : Industrial (Cement Factory)
- (d) Assembly size (for tube well) : 200 mm X 150 mm.
- (e) Approx. strainer length (for tube well) : 20 m.
- (f) Diameter (for dug well) : - m.
- (g) Type of pump to be used : Submersible
- (h) H. P. of the pump : 7.5 H.P.
- (i) Operational device : Electric Motor
- (j) Rate of withdrawal (m³/hr.) : 30m³/hr for 7 hrs/day
- (k) Maximum allowable running hours per day : 7 hrs/day

This permit authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3)(j) and for running hours / day as shown at Sl. (3)(k), and is valid subject to the observance of the conditions stated overleaf.

Place : W. Midnapore

Date : 16.10.2015

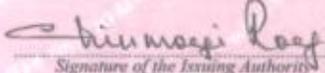
Conditions :

- (1) In case of any change of ownership of the proposed well, fresh registration has to be obtained.
- (2) No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at Sl. (2) and (3)(j) shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this permit.
- (3) In case, any of the particulars / information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
- (4) Any other condition imposed by the concerned Authority.

SPL 000/09-10/1,00,000 P.T.O

Office of the Geologist
Geological Sub-Div. No. - I/A S.W.I.D.

OFFICE
SEAL
Member Secretary, D.L.A.
Paschim Medinipur


Signature of the Issuing Authority
and Designation
Geologist
Geological Sub-Div. No. - I/A, S.W.I.D.
&
Member Secretary, D.L.A.
Paschim Medinipur

Office of the Geologist
Geological Sub-Div. No. - I/A S.W.I.D.

OFFICE
SEAL
Member Secretary, D.L.A.
Paschim Medinipur

Photograph-16



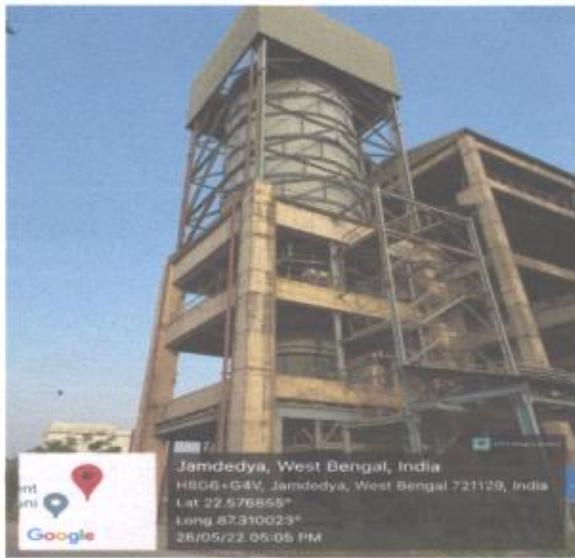
IX	Process effluent discharge is not permitted. No liquid effluent shall be generated by adoption of dry grinding process.	Cement Grinding Unit- The plant is based on dry grinding process technology and as such there no discharge of process effluent. 60 KLD STP has been installed for treatment and reuse of domestic waste water (Photograph no.-17). CPP- Waste water from CPP is neutralized in a neutralization pit and the treated water is used for dust suppression.
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(Photograph-17)

X	Clinker manufacturing/heating is not permitted under this Environment Clearance. Clinker and Fly Ash shall be stored in the closed silos and Gypsum and slag in covered shed.	Clinker is not manufactured at this facility. Clinker and the fly ash is stored in closed silo (Photograph no. 18 & 19). Gypsum is stored under covered shed (Photograph no.-20)
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(Photograph-18)



(Photograph- 19)



GYPSUM SHED



SLAG SHED

Photograph no.-20

XI

All the bag filter dust, raw material dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process used for cement manufacturing. Spent oil and batteries should be sold to authorized recyclers/reprocessors only. Hazardous waste generated to be disposed of as per provisions of Hazardous Wastes (Management and Transboundary Movement) Rules, 2016.

The dust collected in air pollution control devices/bag filters and raw material dust is being reused in the cement manufacturing process.

Fly Ash generated from CPP is completely used in the cement manufacturing process. The Hazardous Waste Authorization for handling of used oil and spent oil has been applied to WBPCB. The hazardous waste generated from site is stored in dedicated shed for short and sold to Pollution control board (PCB) authorized recyclers/reprocessors only (Photograph no.-21)

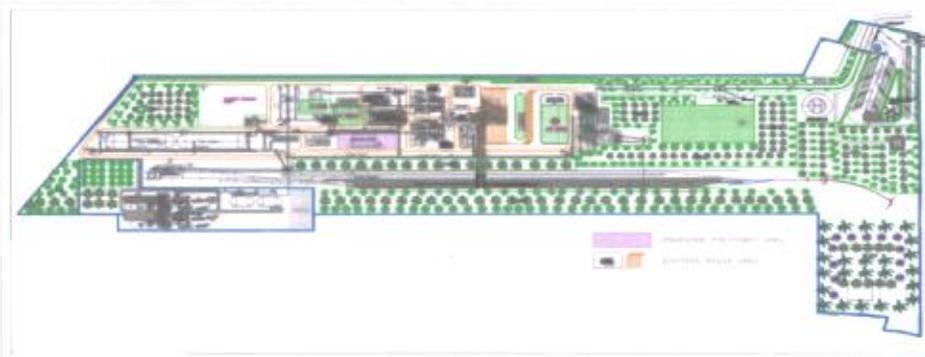




(Photograph-21)

XII	<p>Adequate provisions should be made for harvesting rainwater. The harvested water should be used for plantation, firefighting, washing and cleaning etc. Recharging of Groundwater is not permitted.</p>	<p>Rainwater harvesting pit, as proposed, shall be constructed by 31.03.2023.</p> <p>The harvested rainwater will be utilized to plantation, firefighting, washing and cleaning only. This will help us to maximum extent to conserve fresh water.</p> <p>The ground water will not be recharged within the plant premises.</p>
XIII	<p>Greenbelt shall be developed within the plant premises. At least 33% of the area should be kept for greenbelt development. At least 12500 (as stated in previous environmental clearance vide no. 89/EN/T-II-I/037/2015 dated 14.1.2016) to be planted and maintained in the greenbelt area of 44 acres. There should not be any removal/destruction of vegetative cover both at the establishment as well as the operational stage, without the sanction of appropriate authority.</p>	<p>Greenbelt is being developed and as prescribed, 33% of the area has been covered with greenbelt by planting more than 71500 number of tree species.</p> <p>No vegetative cover was destroyed/ removed during the establishment and operation phases.</p> <p>60 Acres of Land has been developed as Greenbelt of recommended species (Photographs attached below). As per terms given for plantation in Environment Clearance vide no.89/EN/T-II-I/037/2015 dated 14.01.2016 we have planted 42825 against target given of 12500 (Table no.-3 & Photographs no. 22, 23 & 24).</p>





Photograph -22



Photograph-23

PLANTATION DETAILS

Sl. No.	BOTANICAL NAME	COMMON NAME	QUANTITY PROPOSED	PLANTED
1	Anthocephalus cadamba	Kadam	500	1000
2	Peltophorum pterocarpum	Radhachura	500	5000
3	Polyalthia longifolia	Debdaru	2000	4000
4	Madhuca longifolia	Mahua	750	15
5	Schleichera olosa	Kusum	350	0
6	Alstonia scholaris	Chhatim	2000	3000
7	Mimusops elengi	Bakul	2000	5000
8	Terminalia arjuna	Arjun	500	2000
9	Delonix regia	Gulmohor	250	5000
10	Bombax ceiba	Simul	500	300
11	Acacia auriculiformis	Akashmoni	1000	10000
12	Ficus benghalensis	Banyan	25	10
13	Dalbergia sissoo	Sisoo	1000	1500
14	Ficus benjamina	Fig Tree	250	0
15	Tectona grandis	Teak	250	6000
16	Ficus religiosa	Ashathwa	125	0
17	Cassia fistula	Amaltas	500	0
		Total	12500	42825

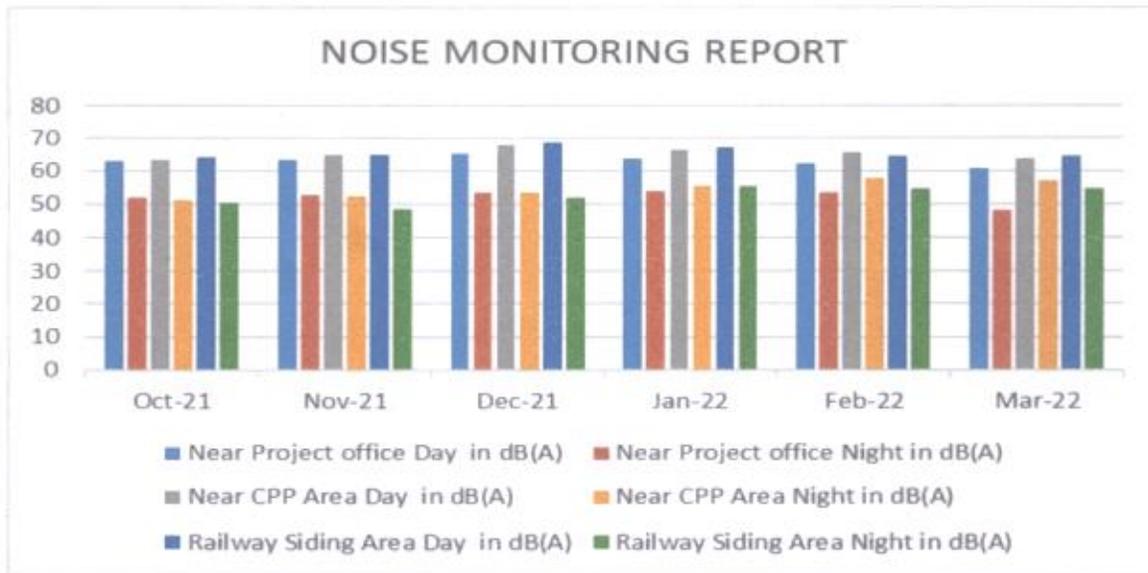
Table-3



XIV	<p>The overall noise levels in and around the plant area shall be kept well within the standards 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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).</p>	<p>The overall noise levels in and around the plant area is maintained within prescribed limit (Comparative graph-3 and table-4 of noise level at different location is attached below).</p>
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Location →	Near Project office		Near CPP Area		Railway Siding Area	
	Day in dB(A)	Night in dB(A)	Day in dB(A)	Night in dB(A)	Day in dB(A)	Night in dB(A)
Months↓						
Oct-21	63	51.7	63.3	51	64.1	50.2
Nov-21	63.2	52.5	64.8	52.3	64.7	48.3
Dec-21	65.3	53.5	67.8	53.3	68.5	52
Jan-22	63.8	53.7	66.2	55.1	67.3	55.2
Feb-22	62.1	53.4	65.5	57.4	64.4	54.4
Mar-22	60.5	48.2	63.8	56.7	64.5	54.5

Table-4



GRAPH-3

XV	<p>Asphalting/concreting of roads and water spray all around the stockyard and loading/unloading areas in the cement plant shall be carried out to control fugitive emissions. Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading pints, transfer points and other vulnerable areas. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.</p>	<p>The unit has concreted all the internal roads further the roads were cleaned using truck mounted sweeping machines (Photographs-24 & 25). Regular water sprinkling is done in critical areas prone to air pollution to maintain the ambient air quality parameters.</p>
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Photograph-24



Photograph-25

XVI

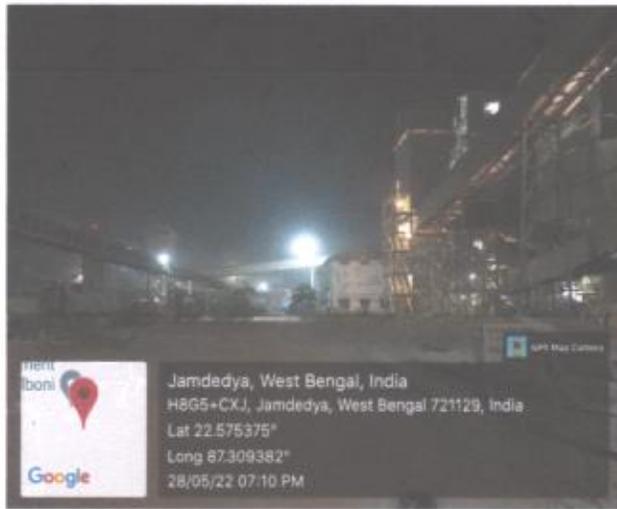
Proper lighting and proper pathway inside the factory premises should be constructed to ensure safe vehicular movement. Provision of separate pathway for entry and exit of vehicles should be considered. Vehicles should conform to Pollution under Control (PUC) norms. Proper

Proper lighting and pathway inside the factory premises are being provided (Photographs-26 & 27).

Separate pathways are provided for entry and exit of vehicles.



	housekeeping shall be maintained within the premises.	inside the plant. Good housekeeping is maintained within the premises
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Photograph-26



Photograph-27

XVII Health and safety of workers should be ensured. Workers should be provided with adequate personnel protective equipment and sanitation facilities. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as the Factories Act.

Health and safety of workers is being ensured by implementing in line with ISO 45000 standard. Required PPEs and sanitation facilities are provided to workers at site (Photograph no.-28 & 29).
Occupational Health Surveillance were done on regular basis and records were maintained as per requirements of the Factories Act. In last financial year cent percent JSW staffs have done periodic health checkup whereas associates workers have done 90% periodic health checkup (Table-5).

Sl. No.	Type of Employee	Percentage of staff/ Associates undergone periodic health check-up.
1	JSW Staffs	100%
2	Associate Employees	90%

Table-5



Photograph-28



Photograph-29



XVIII	Adequate measures to be adopted to ensure industrial safety. Proper fire detection and protection systems to be provided to control fire and explosion hazards.	Adequate measures are being taken to ensure industrial safety. Fire detection and protection devices are being installed in different locations to control fire and explosion hazards (Photographs no.- 30 & 31)
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Photograph-30



Photograph-31

XIX	All the recommendations mentioned in the Corporate Responsibility for Environmental Protection (CREP) guidelines for Cement Plants shall be followed and complied.	All the applicable recommendations of CREP guidelines for cement plant is being followed and complied.
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XX	The implementation and monitoring of Environment Management Plan should be carried out, as proposed.	Environment Management Plan, as proposed in the EIA report, is being carried out and implemented.
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XXI	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on local need and action plan with financial and physical break-up shall be prepared and submitted. Implementation of such program shall be ensured accordingly in a time bound manner.	An amount of Rs. 10.00 Crore is earmarked for Enterprise Social Commitment (ESC) based on local needs. Action plan with financial and physical break-up was prepared and submitted. We have Year wise and item wise budget to be spent in coming 5 years is described below (Table-6).
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Enterprise Social Commitment (ESC) Budget for Financial Year: 2018-19 to 2022-23			Rs. Lakhs					Total Budget
Category	Sl. No.	Activity	2018-19	2019-20	2020-21	2021-22	2022-23	
Category 1			100.00	130.00	70.00	60.00	60.00	420.00
Improving Living Conditions	1.1	Promoting Health Care		30.00	20.00	10.00	10.00	70.00
	1.2	Safe Drinking water	100.00	100.00	50.00	50.00	50.00	350.00
Category 2			20.00	30.00	30.00	20.00	20.00	120.00
Promoting Social Development	2.1	Formal educational institution infrastructure & Development	20.00	20.00	20.00	10.00	10.00	80.00
	2.2	Vocational educational institution infrastructure & Development		10.00	10.00	10.00	10.00	40.00



Category 3			10.00	15.00	10.00	10.00	10.00	55.00
Addressing Environmental Issues	3.1	Tree Plantation	5.00	5.00	5.00	5.00	5.00	25.00
	3.2	Promoting use of Renewable energy	5.00	10.00	5.00	5.00	5.00	30.00
Category 4			70.00	70.00	70.00	95.00	95.00	400.00
Rural Development Projects	4.1	Rural Roads and Drainages	20.00	20.00	20.00	20.00	20.00	100.00
	4.2	Infrastructure facilities in Rural area	50.00	50.00	50.00	75.00	75.00	300.00
Overhead			1.00	1.00	1.00	1.00	1.00	5.00
Project Management Cost	5.1	Project Management Cost	1.00	1.00	1.00	1.00	1.00	5.00
Total			201.00	246.00	181.00	186.00	186.00	1000.00

Table-6

Sl. No.	GENERAL CONDITIONS:	COMPLIANCE
i.	The environment clearance accorded shall be valid for a period of 7 years for the proposed project.	Noted and agreed.
ii.	Prior Consent-to-Establish (NOC) for the proposed project must be obtained from WBPCB before commencement of construction. All other statutory clearances should be obtained by the project proponent from the competent authorities.	The unit has obtained consent to Establish from the WBPCB vide letter NOC No. 153376, Memo No. 654-2N-45/2015 (E), dated 15.12.2017. All other statutory clearances have also been obtained from the respective departments.
iii.	The project proponent shall comply with all the environmental protection measures and safeguards recommended in the EIA/EMP. Further, the unit must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply, sanitation programme for local school and health care etc.	The unit is complying to all the environmental safeguards envisaged in the EIA, EMP, Environment Clearance, Consents issued by the board. Socio-economic development activities like community development programs, educational programs, drinking water supply, sanitation programs for local school and health care etc. have been initiated and will be further strengthened in due course (photograph no-32 ,33,34 & 35)





Photograph-32



Photograph-33



Photograph-34



Photograph-35

<p>iv</p>	<p>All the conditions, liabilities and legal provisions contained in the EC shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other party.</p>	<p>Noted and agreed.</p>
<p>v.</p>	<p>Provision should be made for the supply of kerosene or cooking gas to the labourers during construction phase. All the labourers to be engaged for construction works should be screened for health and adequately treated before issue of work permits. Environmental sanitation should be ensured for the workers.</p>	<p>The labours were supplied with kerosene/ LPG for cooking during construction phase. Medically fit labours were only issued gate pass for entry inside plant premises. Good housekeeping and sanitation is maintained for the workers.</p>
<p>vi.</p>	<p>The project proponent should make financial provision in the total budget of the project for implementation of the environmental safeguards. The project authorities will provide requisite funds both recurring and non-recurring to implement the conditions stipulated by the SEIAA, West Bengal alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.</p>	<p>The unit has accrued Rs. 70.98 Crores towards implementing the Environment Management Plan (EMP), (Details attached in table-7). Implementation schedule for all the conditions stipulated in this EC is submitted to SEIAA, West Bengal. The fund allocated for EMP will not be diverted for any other purpose.</p>



COST OF ENVIRONMENTAL PROTECTION MEASURES
ITEMWISE BREAKUP OF CAPITAL INVESTMENT & ESTIMATES FOR
ENVIRONMENT MANAGEMENT PLAN

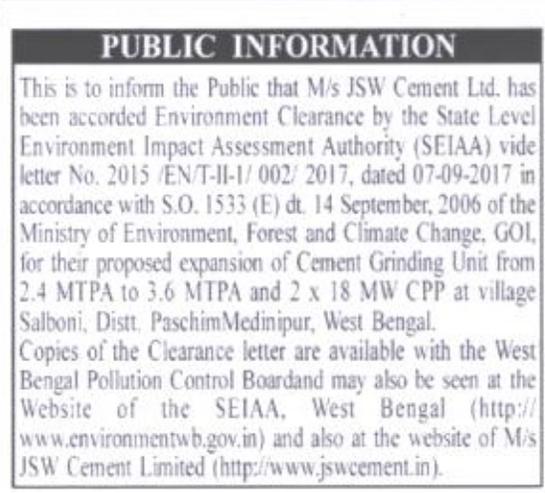
Details of allocation made for environmental management for 1 X 1.2 Cement Plant and 2X 18 MW CPP		
S. No.	Particulars	Capital Investment (Rs. Lakhs)
1	Process Bag Houses(RP Unit)	200
2	Flue Gas Desulphurization Unit	4000
3	ESP for boilers	300
4	De-dusting Bag Filters	240
5	Fly Ash Handling System	900
6	Process Bag House (Coal Mill)	40
7	Process Bag House (Wagon Tippler)	60
8	Covering of Belt Conveyors	756
9	Covered Shed for Gypsum (1500 MT)	94.5
10	Covered Shed for Coal (1500 MT)	94.5
11	Internal Roads	208.65
12	Green Belt development	100
13	Rain Water Harvesting	30
14	Water Sprinklers with pumps, etc.,	15
15	Noise pollution control	50
16	Occupational Health Centre	50
	Total	7098.65

Table-7

vii.	No further expansion or modifications in the plant should be carried out without prior approval of the state level Environment Impact Assessment Authority, West Bengal. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, West Bengal.	Noted and Agreed.
viii.	The West Bengal Pollution Control Board, who would be monitoring the implementation of environmental safeguards, should be given full cooperation, facilities and documents/ data by the project proponent during their inspection. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to the WBPCB regularly. A complete set of documents should also be forwarded to the State Level	Full co-operation shall be extended to the officials of the SPCB during their inspection. Six monthly compliance reports & the status of the implementation of the stipulated environmental safeguards shall be submitted to State Environment Impact Assessment Authority, Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board & State Pollution Control Board and also



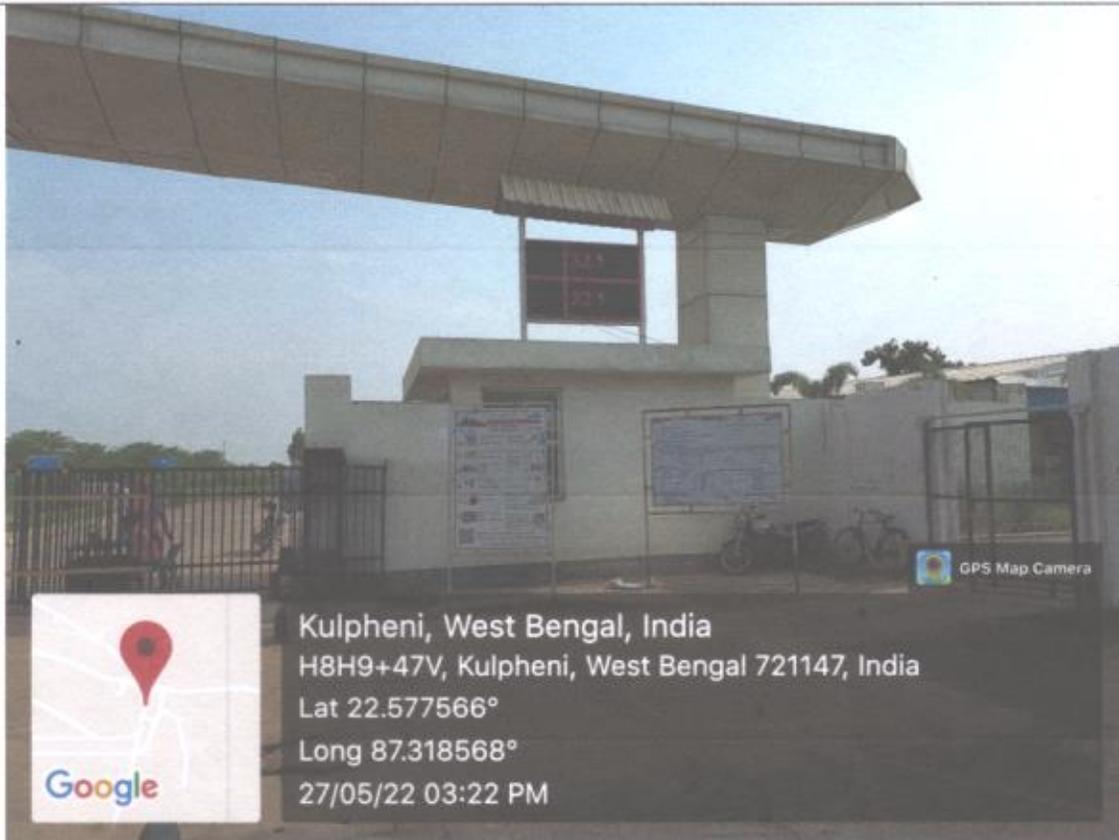
	Environment Impact Assessment Authority, West Bengal.	posted on the website of the Company. Copies of six monthly compliance report, monitored data and statistical interpretation of the monitored data will be submitted to SEIAA.
ix.	The State Level Environment Impact Assessment Authority, West Bengal reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Noted and agreed.
x.	The project proponent should inform public that the project has been accorded environment clearance by the SEIAA, West Bengal and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the SEIAA, West Bengal (http://environmentwb.gov.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.	The information was advertised through publication in The Telegraph Calcutta (English) and Anand Bazar Patrika (Bangla) dated 15 th September 2017 (Photograph no-36).



Photograph-36

xi.	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. The criteria pollutant levels namely: SPM, RSPM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Status of EC compliance as well as monitored data is being uploaded on the website and also been submitted to the WBPCB (https://www.jswcement.in/sustainability). Monitoring of critical sectoral parameters of the project are being done and data being displayed near the main gate of the company (Photograph no.-37)
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(Photograph-37)

xii.	The project authorities should inform the State Pollution Control Board as well as the SEIAA, West Bengal, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work/ project implementation.	Date of financial closure of the project: NA Date of final approval of the project: 15.12.2017 Date of land development/ project implementation: January 2018
xiii.	The above stipulations would be enforced along with those under the Water (Prevention and Control of Pollution) Act, 1974, the Air ((Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2009, the Public Liability Insurance Act, 1991, The Environment Impact Assessment Notification 2006 and their amendments.	Noted and agreed.

Sivaramakrishna Maddipoti

Plant Head,

JSW Cement Limited, Salboni.

