

KSK Mahanadi Power Company Limited

CIN No: U40300TG2009PLC064062

Works

Near Nariyara Village, Akaltara Tehsil, Janjgir - Champa District, Chhattisgarh Tel (Site): 07817-284001 Registered Office

8-2-293/82/A/431/A, Road No. 22, Jubilee Hills, Hyderabad - 500033. Tel: +91-40-23559922-25, Tel: +91-40-23558701

Ref.: MOEF& CC, NPUR | PDKN/2500 108 | 1592

30th Nov. 2018

Fax: +91-40-23559930

To

The Addl. Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-440001 Maharastra

Sub: - Six Monthly Status of Compliance for Environmental Clearance granted to 6 x 600 MW Coal Based Thermal Power Project located in village: Nariyara, Tehsil-Akaltara, District-Jangir, Champa, Chhattisgarh by M/s KSK Mahanadi Power Company Limited,- Reg.

Ref: - i) Ministry's Letter No. - J13012/44/08 -IA.II (T), Dt. 19.10.2009 ii) Re-validation Letter No. - J-13012/44/2008-IA.II (T), Dt. 19.04.2018.

Sir,

With reference to the subject above, please find enclosed herewith our Status on Compliance to Environmental Clearance from April-2018 to September-2018.

For favour of your kind information and record please.

Thanking You.

Your's sincerely,

For KSK Mahanadi Power company Limited

(Authorized Signatory)

Copy to: (1) The Member Secretary, CECB, Atal Nagar, Raipur, Chhattisgarh.

(2) The Regional Officer, CECB, Bilaspur, Chhattisgarh.

Encl: Six Monthly Environmental Clearance Compliance Report- Apr'18 to Sept.'18

KSK MAHANADI POWER COMPANY LTD.
(6x600 MW Coal Based Thermal Power Plant)
at
Nariyara -Village, Janjgir-Champa - District.,
Chhattisgarh

SIX MONTHLY COMPLIANCE REPORT OF SPECIFIC CONDITIONS Accorded and Extended Validity of Environment Clearance [Ref. Letter No-J13012/44/08 -IA.II (T) Dated 19.10.2009 & [E.C Ref. Letter No- J-13012/44/2008-IA.II (T), Dated 19.04.2018



FOR PERIOD:
APR.2018
TO
SEPT.2018



S. No.	Condition	Compliance
1	Two tri-flue stacks of 275m height should be provided.	Two nos. of RCC stacks already been provided for all the six units. The height of both the stacks is 275 meters from the ground level.
2	COC of 5 shall be maintained	Cycle of Concentration 5 has been maintained.
3	To utilize fly ash generated from the power plant, the proponent should explore the possibility of setting up either its own cement plant /grinding unit and/or a brick manufacturing unit of 50,000/1,00,000 bricks/day capacity, and explore other possibilities of utilizing the fly ash in full form the stipulated period.	As per Fly Ash Notification S.O. 2804(E), 3rd November, 2009, Fly Ash has been utilized by operational units with following manner: i) For 6 th Year operation of Unit#3 , 100% of Fly Ash has been utilized against the target of 100%. ii) For 5 th year of operation of Unit#4 , 100% of Fly Ash has been utilized against the target of 100% iii) For 1 st year of operation of Unit#2 , 50% of Fly Ash has been utilized against the target of 50%
		Long term action plan is enclosed as Annexure-I
4	For post project monitoring, the proponent should set up piezometric monitoring station around the ash pond.	4 Nos. of Pizometric wells have been provided around the ash pond area. Images of Piezometers is enclosed as Annexure-II
5	From 4 th year onwards, the transportation of coal should be through rail only.	Rail line infrastructure has been made for coal transportation from SECL, Korba. 80% of Raw coal is being transported from the SECL, Korba area to plant head & remaining coal is being transported through road mode
6	The green belt to be provided should be of canopy type with three tiers.	A green belt of 5/6 tiers, in 100 meter width is being developed, along the periphery of the plant boundary.
		Species selection has been made on the basis of local Climatological factors and soil characteristics.
		(i.e. Sisam, Peltoform, Satvan, Karanj,Siris, ,Simarua, Neem, Ganga imili, Pepal, Kadam, Cassia Siamia, Chinour, Arjuna, Mango, Bargad, Jamun, Amla, Gulmohar are being used in rows to maintain canopy type and strata)
		As on date, total 3,99,910 nos. of saplings have been planted within the Plant premises in an areas about 274 hectares i.e 33% of total project area (828.46 Hectares) and further plantation is in progress. Photos of the Greenbelt developed at site are attached as Annexure-III.



7	An amount of 64 crore as capital and Rs. 10 crore/annum as recurring should be earmarked for the activities to be taken up under CSR by the above proponent. Details of activities to be undertaken in this regard should be submitted.	As on date Rs. 52.84 Crores have been spent for CSR activities, the detail of the work activities under CSR is enclosed as Annexure-IV. Similarly the report has been communicated to MOEF and Regional Office, Bhopal including CECB, Raipur on regular basis.
8	High efficiency of Electrostatic Precipitator (ESP) with spare fields shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ .	High efficiency ESP + Hybrid Fabric Filter combination, with 99.7% efficiency has installed for each Unit (600MW). Average emission of Particulate Matter from operational Units- 1, 2 & 3 are well within stipulated norms of 50mg/Nm3 and 30 mg/Nm3.
		Note: Emissions from unit-I and Unit-II have been designed to operate less than 50 mg/Nm3 and in case of Unit-III, it is less than 30mg/Nm3. Average emission of Particulate Matter from operational Units- I, II & III are well within 20 to 50mg/Nm3.
		Details of stack emission are presented in Annexure-V .
9	Space provision shall be kept for retrofitting of FGD system, if required at a later date.	Space provisions have been made for installation of FGD system in Project lay out.
10	Adequate dust extraction such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Following provisions have been made to control the Fugitive emissions: Pulse Jet type bag filters have been installed at all the Transfer points and on coal conveyor system meant for Coal transport from CHP area to boiler area. 44 Nos. of Rain guns with Water spraying system has been installed in the Coal yard area. 172 Nos. Dust Suppression System & 28 Nos. Dry Fog System has been working in different raw material transfer points and handling section to control fugitive emission at CHP area. Fly ash silo top is mounted with 2 Nos. of Bag filters to arrest fugitive dust, similarly Water spraying system has been provided to mitigate fugitive dust from the dust prone area.
11	A Sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.	STP having capacity of 2x25m³/Hr., is under operation, for treating Domestic waste water. The treated waste water is being reused for green belt and horticulture purpose.
12	Rainwater harvesting should be adopted. Central Ground Water Authority/board is	 Rain water harvesting structures have been constructed as per approved plan of CGWB.



	consulted for finalization of appropriate rain water harvesting technology within a period of three months from the date of clearance and details shall be furnished.	➤ Rain water harvesting pond has been constructed with a capacity of 60 CUM, abandoned bore wells have been converted in to rain water recharge wells and Percolation structures have been constructed in low lying areas Details are enclosed as Annexure-VI
13	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season.	Adequate provision for dust suppression system-water sprinkling arrangement has been incorporated in the project in all dust vulnerable areas including coal storage yard and being operated regularly to minimize fugitive emissions. All safety measures have been adopted to check/minimize any incidents of fire and especially in summer season. Two full-fledged fire tenders are available at site.
14	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place. Sulphur content in the liquid fuel not exceed 0.5%	On Site Disaster Management Plan has been approved by factory Inspector and the same is being implemented during operation of the power plant.
16	Regular monitoring of ground water in and around ash pond area including heavy metals (Hg,Cr,As,Pb) shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely	Regular Monitoring of ground water in and around ash dyke areas is being done to have check the heavy metals into the ground water.
17	A greenbelt of adequate width and density shall be developed around the plant periphery covering 1/3 rd of the project area with local species.	A green belt of 5/6 tiers, in 100 meter width is being developed, along the periphery of the plant boundary. Species selection has been made on the basis of local Climatological factors and soil characteristics.
		(i.e. Sisam, Peltraforms, Satvan, Karanj, SirisSimarua, Neem, Ganga emali, Pipal, Kadam, Cassia siamia, Chinour, Kahua, Mango, Bargad, Jamun, Amla, Gulmohar are being used in rows to maintain canopy type strata)
		As on date, total 3,99,910 nos. of saplings have been planted within the Plant premises in an areas about 274 hectares i.e 33% of total project area (828.46 Hectares) and further plantation is in progress.



		Dhahaa af tha Curringly days I I I I I I I
		Photos of the Greenbelt developed at site is attached as Annexure-III.
18	First Aid and sanitation arrangements shall be made available for the drivers and other contract workers during construction phase.	Adequate arrangement for first aid, sanitation and safe drinking water has been provided for all drivers and contractor workers during construction activities.
19	Regular monitoring of ground level concentration of SO ₂ , NOx, Hg, SPM and RSPM shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of	Regular ambient air quality monitoring of ground level concentration of SO ₂ , NOx, CO, PM10 and PM2.5 is being carried out in the impact zone and the details are being submitted on monthly basis to CECB, Chhattisgarh. The values are well within the prescribed limits
	this Ministry. The data shall also be put on the website of the company.	
20	The project proponent shall 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 /office of Municipal Corporation/Gram Panchayat concerned and on the company's web site within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of 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 Public Notice of Environmental Clearance has been published in two local newspapers namely- The Haribhumi and DanikBhaskar on 23.10.09 which are widely circulated in the region. Enclosed as Annexure -VII Complied
21	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied Environmental Clearance letter has been placed in the website of the company.
22	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitoring 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 levels namely; SPM, RSPM,SO2, NOx (ambient levels as	Status of compliance of EC conditions has been uploaded as stipulated and is being updated regularly on Six monthly basis.



	well as stack emissions) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	
23	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 in hard copies as well by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.	Half yearly report for the period of Oct. 2017 to March 2018 has been submitted vide Letter No.MoEF&CC,NPUR/PDKN/2500108/691 Dt: 22.05.2018. Enclosed as Annexure-VIII
24	The environment 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 Offices of MOEF by e-mail.	Environment Statement for the Financial year 2017-18 has submitted vide letter noCECB,BILAS/PDKN/2500108/692 Dtd.22.05.2018. Enclosed as Annexure-IX
25	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	An Environment Management cell has been setup, headed by Sr. General Manager.
26	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report, Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.	A complete set of documents has been submitted to Regional Office of the Ministry vide Letter Ref No. MOE&F, BHPL/AGRY/1160201/1147 Dated 09.12.2009.
27	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	As submitted in the EIA report separate amount of Rs. 1246 Cr. has been provided for pollution control, treatment and monitoring systems.
28	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and	 Date of financial closure: Feb, 2010. Date of start of land development work Nov, 2009. Unit No3 (1x600MW) is under



	commissioning of plant.	operation since Sep 2013
		• Unit No4 (1x600MW) is under operation since Sep 2014
		• Unit No2 (1x600MW) is under operation since Feb 2018
		Work is in progress on fast track basis for other remaining units.
29	Full cooperation shall be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bangalore/the CPCB/the SPCB who would be monitoring the compliance of Environmental status.	Shall be complied as per the requirements of CPCB and CECB Raipur, Chhattisgarh.
30	The total project area shall comprise of 828.46 Ha as stipulated while issuing the EC	Complied
31	An amount of Rs 64 crores as capital and Rs 1.83 Crores /annum (or the amount as per the CSR policy of GOI whichever is higher) as recurring costs should be earmarked for CSR activities to be undertaken in this regard shall be submitted.	As on date Rs.52.84Crores has been spent for CSR activities, the detail of the work activities under CSR is enclosed as Annexure-IV . Similarly the report has been communicated to MOEF and Regional Office, Bhopal including CECB, Raipur on regular basis.
32	Continuous online monitoring system for stack emissions, ambient air quality and effluent discharge for various relevant parameters shall be put in place at the earliest, if already done and compliance to be reported to this ministry including its RO	Continuous online monitoring system for stack emissions is already installed & working w.r.t operational Units No. 3, 4 & 2. On line monitoring data is already showing at main gate display board and website-portal of KMPCL.
		4 CAAQMS have been installed inside plant premises.
		Continuous Effluent Monitoring systems have been installed. Photos attached as Annexure-X
33	Harnessing solar power within the premises shall be carried out and the status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.	Options of Harnessing of Solar power at available roof tops within the premises of is being explored out and details will be submitted shortly
34	A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through reputed institute and results thereof analyzed every two year and reported along with monitoring reports.	Long term study of radio will be carried out through reputed institute. However, the following measures have been taken to minimize the leaching if any in coal yard and ash storage systems
	Therefore mechanism for an in built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	 300mm CC Flooring has been done in Coal yard area. Construction of garland drain, all along the Coal yard, from where waste water is collected and after treatment in ETP, the



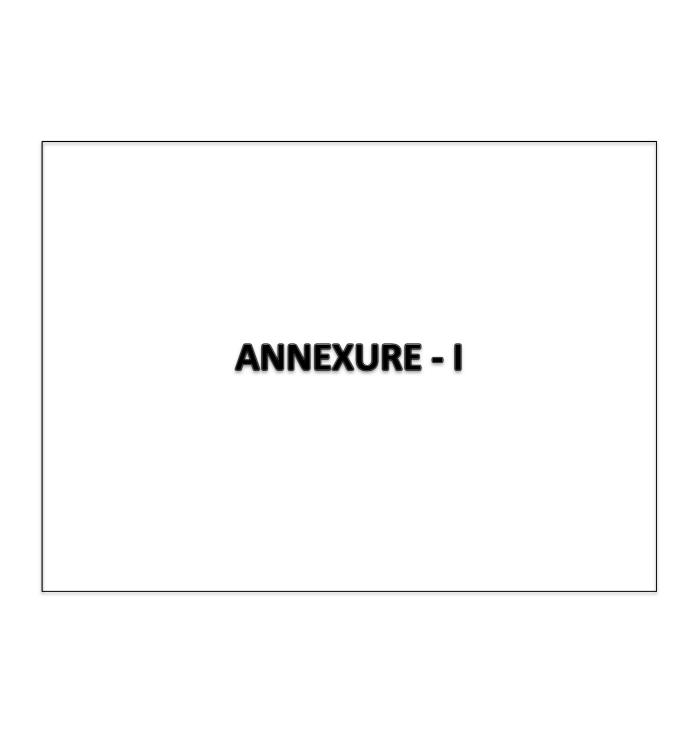
		water is being reused for dust suppression
		Following measures has been implemented for Ash Dyke area, to check the leaching of Heavy metals into the ground water table:
		 Both Bottom & Fly ash Dykes has been floored with 0.75Micron LDPE. Four No's of Pizzo metric Wells have been constructed, along the periphery of ash Dykes, for regular monitoring of Qty& Quality of ground water to assess the contamination or leaching of heavy metals from ash dyke area
35	Mercury emissions from stack shall be monitored on periodic basis.	Stack Emissions monitoring is being done monthly intervals for SO2, NOx, CO & Particulate matter. Mercury and other heavy metals and reports submitting to SPCB
36	Fugitive emissions shall be controlled to prevent impact on agricultural or non-	Following provisions have been made to control the Fugitive emissions:
	agricultural land.	Pulse Jet type bag filters have been installed at all the Transfer points meant for Coal transport from CHP area to boiler area.
		44 Nos. of Rain guns with Water spraying system has been installed in the Coal yard area.
		Nos. Dust Suppression System & 28 Nos. Dry Fog System has been working at different raw material transfer points and handling section to control fugitive emission in CHP area.
		Fly ash silo top is mounted with 2 Nos. of Bag filters to arrest fugitive dust, similarly
		Water spraying system has been provided to mitigate fugitive dust from the dust prone area.
		Apart from that a thick green belt is already developed around plant boundary to arrest fugitive emission from non-point sources.
37	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up/operation of the power plant.	Adequate measures had been implemented to take care of natural drainage system.
38	Fly ash shall not be used for agricultural purpose. No Mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such as that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted,	Complied



	prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the state pollution control board.	
39	Details of 100% Fly ash utilization plan as per latest Fly ash Notification of GOI along with firm agreements/ MOU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method/ mechanism of bottom ash.	As per Fly Ash Notification S.O. 2804(E), 3rd November, 2009, Fly Ash has been utilized by operational units with following manner: i) For 6th Year operation of Unit#3, 100% of Fly Ash has been utilized against the target of 100%. ii) For 5th year of operation of Unit#4, 100% of Fly Ash has been utilized against the target of 100% iii) For 1st year of operation of Unit#2, 50% of Fly Ash has been utilized against the target of 50% Long term action plan is enclosed as Annexure-I
40	Green belt shall also be developed around the ash pond and above the green belt around the plant boundary.	For green belt, more than 30000 saplings have been planted all around the ash dyke area, covering area of approx. 25 Ha. A green belt of 5/6 tiers, in 100 mtr width is being developed, along with the periphery of the plant boundary. Species selection has been made on the basis of local Climatological factors and soil characteristics. (i.e. Sisam, Peltoform, Satvan, Karanj, Siris, Simarua, Neem, Ganga emili, Pepal, Kadam, KesiaSamia, Chinour, Arjuna, Mango, Bargad, Jamun, Amla, Gulmohar are being used in rows to maintain canopy type and strata) As on date, total 3,99,910nos. of saplings have been planted within the Plant premises in an areas about 274 hectares i.e 33% of total project area (828.46 Hectares). Photos of the Greenbelt developed at site is attached as Annexure-III.



41	An environment Cell comprising of at least one expert in environment science/Engg. Ecology, occupational health and social science, shall be created preferably at project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the head of the cell shall directly report to the Head of the plant who would be accountable for implementation of environmental regulations and social impact improvement/mitigation measures.	Environment Cell is already established which includes Environment Engineer, Environmental scientist, Ecologist, Horticulturist and socio science experts from inception of project operations. Environmental cell head is directly reporting to plant. EMD cell basic responsibility is to implement environmental compliance conditions of MOEFCC and CFE and CFO and also implement environmental measures.
42	CSR schemes identified based on public hearing issues and need based assessment shall be implemented in consultation with the village panchayat and the district administration starting for the development of project itself. AS part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for community development activities and income generating programs.	CSR schemes already identified based on public hearing issues and need based assessment & implemented in consultation with the 4 village panchayat and the district administration. Also Company already provided separate budget for community development activities.
43	For proper and periodic monitoring of CSR activities, a CSR Committee or a social audit committee or suitable credible external agency shall be appointed. CSR activities shall also be evaluated by an independent external agency. This evaluation shall be both concurrent and final	Regular monitoring of CSR activities is being done by Plant authorities and also appraised to District administration.
44	The project proponent shall formulate a well laid corporate environment policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	Corporate Environmental policy will be finalized as per laws and regulations. At present the environmental affairs has been evaluated by the environmental cell headed by Environmental Officer.
45	All other conditions in this Ministry's letter of even no. dated 19.10.2009 and amendment dated 24.01.2012 shall remain the same.	Agreed & complied.



KSK Mahanadi Power Company Limited



Action Plan for FLY ASH UTILIZATION in

KSK Mahanadi Power Company Limited., Nariyara, CG

(in million Tones)

S. No	Item Description	Sept 2015 – Aug 2016	Sept 2016 – Aug 2017	Sept 2017 – Aug 2018	Sept 2018 – Aug 2019	Sept 2019– Aug 2020	Sept 2020 – Aug 2021
1	Expected Total generation of fly ash in million tonnes per annum	1.50	2.00	2.50	2.50	2.72	2.72
а	Use in Stowing and filling up of abandoned coal and other mineral mines	0.10	0.30	0.50	0.33	0.10	0.10
b	Use in filling up of abandoned stone quarry mines	0.05	0.10	0.15	0.15	0.15	0.15
С	Use in Fly Ash in brick manufacturing	0.05	0.05	0.05	0.10	0.18	0.18
d	Road development in surrounding areas	0.10	0.10	0.10	0.09	0.08	0.08
е	Use in Cement manufacturing	1.10	1.55	1.80	1.83	2.21	2.21
2	Expected Total Fly Ash Utilization	1.40	2.00	2.50	2.50	2.72	2.72
3	Expected Fly Ash Utilization (%)	93%	100%	100%	100%	100%	100%



PIZZOMETER BOREWELLS AT KSK-MPCL













GREEN BELT DEVELOPMENT IN M/S KMPCL IN FY2018-19

Plantation Details:

Year	Areas of Plantation Inside Plant Premises.	Species	As on date total nos. of plantation.	Area Covered By Plantation (Ha.)
Upto FY 2017-18 FY 2018-19	Boundary Plantation Tarod Side, Labour Colony Road/Nursery area, Labour Colony Road to Time Off, Main Gate area, Guard Pond area, NH ROAD-Tarod Boundary, Avenue Plantation (DM Plant internal road) and NH ROAD- Banahil Boundary	Sisam, Peltoform, Satvan, Karanj,Sirus Simarua, Neem, Ganga imili, Pepal, Kadam, Cassia Siamia, Chinour, Arjuna, Mango, Bargad, Jamun, Amla, Gulmohar	3,80,330 nos. 19,580 nos.	274 hectares i.e 33% of total project area (828.46 Hectares)
	Total	Gairnonai	3,99,910 nos.	

Photographs for Planation:



















































KSK Mahanadi Power Company Limited

Corporate Social Responsibility – Expenditure from Apr.2018 to Sept. 2018

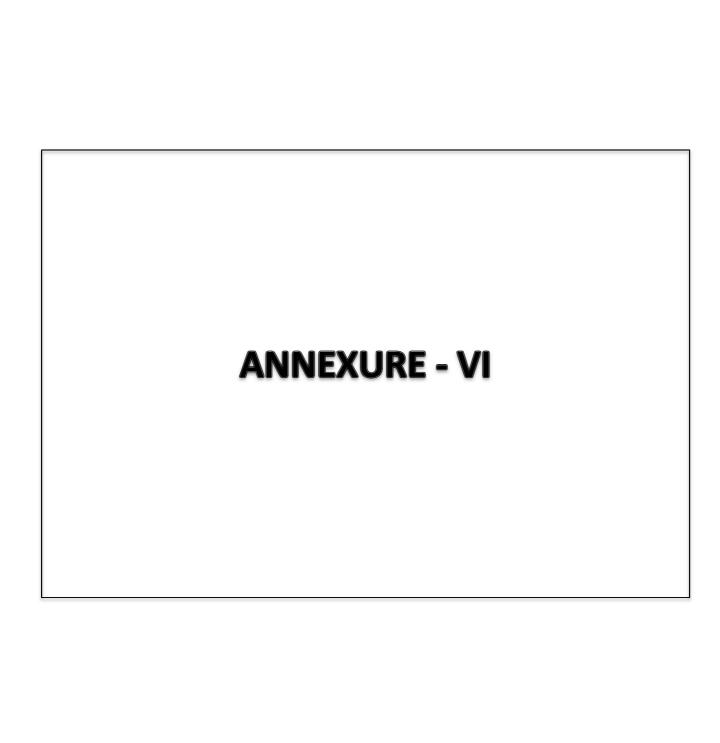
Sl.no.	Focus Area	Till March2018	Apr2018 to Sept2018	Total
a1	Education	31642417	323438	31965855
a2	Health Care	264163589	1251066	265414655
a3	Sustainable Development	23933408	878164	24811572
a4	Infrastructure Development	158163502	729157	158892659
a5	Cultural & Community Support	19251772	236231	19488003
a6	Miscellaneous expenses	6407460	0	6407460
	Sub Total - (a)	503562148	3418056	506980204
b	Cost of Ambulance - (b)	512710	0	512710
С	Total - (c) = (a+b)	504074858	3418056	507492914
d	Corporate Donations - (d)	21000000	0	21000000
	Grand Total	52,50,74,858	34,18,056	52,84,92,914





Annexure V

Particulate Matter Emission's Result (mg/Nm3)					
Month	Unit # 3	Unit # 4	Unit # 2		
	(600 MW)	(600 MW)	(600 MW)		
April-18	37.5	39.4	Shut Down		
May-18	37.2	38.9	Shut Down		
June-18	39.1	36.3	Shut Down		
July-18	Shut Down	38.4	35.5		
Aug-18	Shut Down	36.2	22.4		
Sept-18	Shut Down	30.5	18.3		
Average	37.9	36.6	25.4		



Images of rain water harvesting measures implemented during project stage:



Figure 1- Recharge Well No 1



Figure 2 Rechage Well No 2



Figure 3 Rechage Well No-3



Figure 4 Recharge Well No-4

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Storm water collection well for recharge the ground





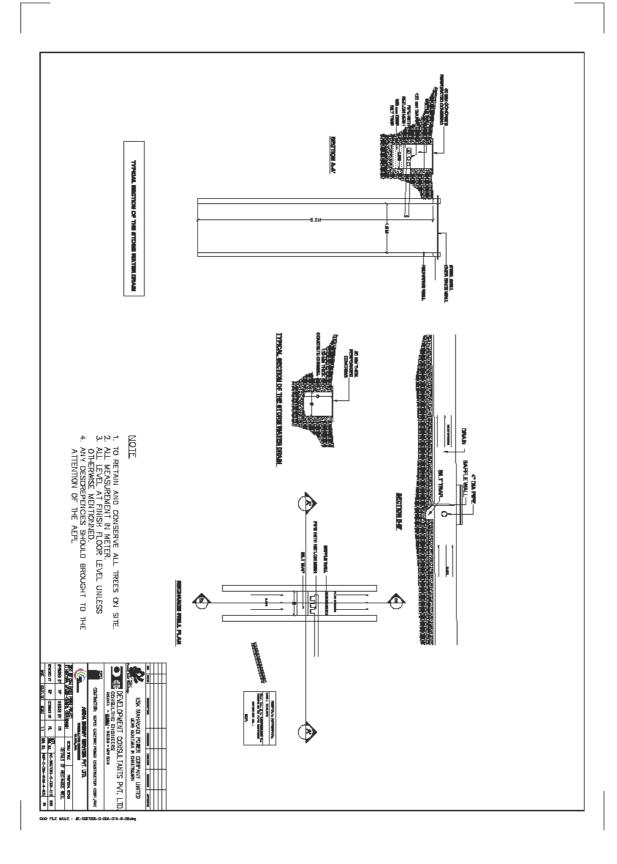


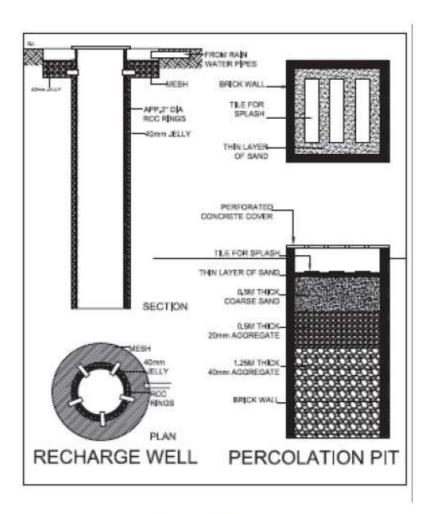


Image of Project Site- At Present (Source : Google Earth)



PROPOSED RWH STRUCTURES DURING OPERATION PHASE:





The recharge well and a percolation pit

Annual Runoff Calculations:

Annual Run off Calculations						
Catchment	Area (Sq.Mtrs)	Run-Off Coeff.	Av. Annual Rainfall(mm)	Total Run off pers annum (KL)		
				137194.3989		
Total Road area	131753	0.9	1157			
				1352473.067		
Other Open area	1948247	0.6	1157			
				1489667.466		
Total Site area	2080000					

RECHARGE WELL CALCULATIONS

Volume of one recharge well:

Description Qty units Diameter 1.5 m Radius 0.75 m Depth 6 m Volume 10.59 cubic meters

Volume 10.59 Cubic meters

Total of 147 recharge wells with a combined volume of 1579.027 cubic meters Over and above this, we can assume a 30% recharge rate.

This means that even while the well is filling up with rainwater, at the same time recharge is happening. Therefore the effective capacity will be 30% more

Effective recharge capacity- 2052.735 cubic meters



कार्तिक युक्त पद-5, 2066

आम सूचना

सर्व संबंधितों को सृचित किया जाता है कि वर्धा पाटर कंपनी लिम्ब्टिड की प्रस्ताबित 5×600 मेगावाट कोयला आधारित ताप विद्युत परियोजना ग्राम- नरियरा, तहसील अकलतरा, जिल्हें जाजगीर-चाम्पा (छ.ग.) को स्थापना हेतु पर्याक्षरण स्वीकृति पत्र क्रमांक-J13012/44/08/-IA, II (Y) के भाष्ट्रम से पर्यावरण एवं वन मंत्रालय, भारत स्तकार (MOEF) द्वारा प्रदान की गई है। इस पत्र की प्रतिलिपि का अवलोकन छ.ग. प्रयावरण संरक्षण मंडले के कार्यालय तथः पर्यावरण एवं वन मंत्रात्तयः, भारत सरकार (MOEF) की वेबसाइट http://envfor.nic.in पर भी किया जा संकता है।

and had made foreign 8-2-293/A/43/A. Road No. 22, Jubilee Hills <u> उद्शबाद</u>

आम सूचना

सर्वसाधारण को सूचित किया जीता है कि भारत सरकार के वन एवं पर्यावरण के द्वारा गठित छ.ग. राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण के आदेश क्रमांक 275/SEIAA-CG/EC/ Mining/8SP/72/09 dated 16.10.2009 के द्वारा मेससे अग्रवाल मिनरल्स बिलाबपुर की ग्राम खरकेना, तहसील तखतपुर, जिला-बिलासपुर (छ.न.) की डोलोभाइट खंदान (5.70 हेदटेसर) पर खनन हेतु पर्यावरणीय स्वीकृति प्रदान कर दी गयो है। उक्त पर्यावरणीय स्वीकृति आदेश की एक प्रति छ.म. प्रदूषण नियंत्रण जोई सम्पूर के समक्ष सुरक्षित है तथा उंदत आदेश को छ.ग. राज्य स्तरीय पर्यावरण प्रभाव निर्धारण प्राधिकरण की वेबसाइट www.envior.nic.in पर भी देखा जा सकता है।

अतः सर्वसाधारण को सचित हो। अधिकत हस्ताग्रसकर्गाः मेसर्स अग्रवाल मिनरत्स लाजपत्तरायनगर, बिलासपुर (छ.ग.)

<u>एकम् ठात्मा ज्ञस्यकृत</u> ी राष्ट्रियायसर्व G-15 23.10.2009 : शा. बालक उ.मा शा Section and the section of the secti साजन्य । ठिकेदार स्यशः वि

GGRUCE faculty Commenced

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वैशाली पाइड 'कोड ... लतेमी के अव्यक्ष केके मुह्ने को द्विपट पर ल्यू मुद्दारा चंद्रणे, अभिवाध तेमारी तम चंद्र

क्षाना क्षान क्षा

45 भी अधिका संस्तीय शतरकार्याय प्रवासिकाम को पदन कल प्रकार में अनाव ने दूसरा स्थान प्राचा विषया। स्वासिकाम प्रतिविक्तिक के सुरने दिन उन्होंने कह है आरोक ट्रमार ने वर्क अंतरक्रीय दिनाहिकों को पेदल बता में प्रसार किया। 20 किसी, की पेदल बात प्रतिविक्ता को उस्रोक पटेल ने शमक्त प्रदर्शन करते हुए 1 घंटे 30 मिनट 2**8 सेकंड** में पून किया।

इसरा स्थान मिल अशोक को

आम सचनाः

सर्व संबंधितों को सर्वित किया जाता है कि वर्षा पावर कंपनी लिनिटेड की प्रस्ताबित 6×600 मेगावाट कोयला आधारित लाप विद्युत परियोजना ग्राप-संशियरा, तहसील अकलतरा; जिल्ह जाजगीर-चारण छ ग को स्थापना हेतु पर्यावरण स्थीकृति पत्र क्रमांक -J:3012/44/08-IA II(T) के माध्यम से पर्यावरण एवं दन मंत्रालय, भारत सरकार (MOEF) द्वारा प्रदान की गई। है। इस पत्र की प्रतिनिधि का अवलोकन छ ग. पर्यावरण संरक्षण मंडल के कार्यालय तथा पर्यवरण एवं वन मंत्रालय, भारत सरकार(MOEF) की वेबसाइड http://envior.nic.in पर भी किया जा सकता है।

आम सूचना

सर्व सावारण को सूचित किया जाता है कि भारत संस्कार के वन एवं पर्यावरण के झरा गठित हैं हों. सज्य स्वसीय पर्यावरण प्रभाव निर्धारण प्राधिकरण के अबदेश क्रिमीक 275/8EIAA-CG / EC/Mining /BBP // 72/09 खंड 16.10.2009 के द्वारा मेसर्स अग्रकल मिनरलस बिलासपुर पी गान खरकेंद्रा, जहसील तथतपुर, जिला- बिलासपुर (छ.ग.) की डोलोमाइट खदान (5.70 हेक्टेयर) पर खेमन हेर्नु पर्यादरणीय स्वीकृति प्रदान कर दी गरी हैं। उदत क्येंदिरणीय रवीकृति आदेश की एक प्रति छ .य . प्रदृष्टम 🚉 जन बोर्ड खेक्पुर के संपक्ष सुरक्षित है दथा उक्त आदेश को छ ग . राज्य स्तरीय पूर्वावरण प्रभाव निर्धारण प्राविकरण की बेबसाइट www.er vior.nic.in पर भी देख: बा सकता है। अतः सर्व साधारण की श्रधिकृष हस्ताक्षरकर्त्र सूचित हो।

(विभाद कुमार अग्रयाल) मेससं अग्रवातः मिनाल्स

्रिनिवृद्धाः सुर्वा । सन्दर्भकोते वह राजवेशो अध्यानी निर्मेषु सुर्वे स्थितिकारी निर्मेषु ए. हेन्सर: १८ १३ स्ट. मश्चेर एत्सर प्रवासिक हेन्द्रास्त्री से हिन्द्रास्त्री से हिन्

ती निर्माण है। निर्माण के नरेन ने कुल में कि जा 11 के में कुल के स्वरंग क्या के कुल में राज्य कि कुल के निर्माण के स्वरंग क्या के दें के प्रत्य के में कुल कि में कुल के निर्माण के कर मित्र की मोर्किक के मान्य के मान्य के मान्य के मान्य के मान्य मित्र की मोर्किक के मान्य के मान्य के मान्य के मान्य के मान्य

्रिकेट क्रिकेट क्रिकेट क्रिकेट स्थापन क्रिकेट क्र 3,630 (18) 100 (18) 100 (18) 100 (18) केंग्स है 5 जाने सिर्म म

ंदिन ध्रुष्ट कर्य केंद्र प्रवीक्तफर्ता के अग्रितिक कर्य प्रदेश केंद्र पर में कि बरने की है है है िक श्रा करों के दोनिकारिक से शिक्त कर यह हाईकर पर मित्र करों की हैं। किस्सा करीं के हाईकर मारण करिया कर कार्यों परिकारिक मांगल कर कार्या करीं तिया करते के स्थाप भी अध्यक्षि परिकारिक दोनिक के तो अस्ति विकारिक के स्थाप के तिया अस्ति हैं। इसका यात्र वह निक्रिया कर सहस्य करती है। अस्ति विकारिक के स्थाप में पित्र के हैं। असी वा कर क्या करते के स्थाप करते हैं। असी वार्तिक से स्थाप के सिक्त करते हैं। इसका करते हैं। विकार असे स्थाप के स्थाप के स्थाप करते हैं।

1998 स्तर प्रसापन चौररी

लाजमतस्य नातं, विल्हमपुर (च.ग.)





KSK Mahanadi Power Company Limited

CIN No: U40300TG2009PLC064062

Works

Near Nariyara Village, Akaltara Tehsil, Janjgir - Champa District,

Chhattisgarh Tel (Sile): 07817-284001 Registered Office

8-2-293/82/A/431/A, Road No. 22, Jubilee Hills, Hyderabad - 500033. Tel: +91-40-23559922-25,

Tel: +91-40-23558701 Fax: +91-40-23559930

GOTIN-ZZARDONOU-OMITZO GOTIN-ZZARDONOU-OMITZO

Ref.: MOEFACC, NPUR/PDKN/2500108/691

To
The Addl. Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office (WCZ), Ground Floor, East Wing,
New Secretariat Building Civil Lines,
Nagpur-440001
Maharastra

Sub: - Six Monthly Status of Compliance for Environmental Clearance granted to 6 x 600 MW Coal Based Thermal Power Project located in village: Nariyara, Tehsil-Akaltara, District-Jangir, Champa, Chhattisgarh by M/s KSK Mahanadi Power Company Limited,- Reg.

Ref: - i) Ministry's Letter No. - J13012/44/08 -IA.II (T), Dt. 19.10.2009

ii) Re-validation Letter No. - J-13012/44/2008-IA.II (T), Dt. 19.04.2018.

Sir,

With reference to the subject above, please find enclosed herewith our Status on Compliance to Environmental Clearance from October-2017 to March-2018.

For favour of your kind information and record please.

Thanking You.

Your's sincerely, For KSK Mahanadi Power company Limited

(Authorized Signatory)

Copy to: (1) The Member Secretary, CECB, Raipur, Chhattisgarh.

(2) The Regional Officer, CECB, Bilaspur, Chhattisgarh.

Encl: Six Monthly Environmental Clearance Compliance Report- Oct'17 to Mar'18





KSK Mahanadi Power Company Limited

CIN No: U40300TG2009PLC064062

Works

Near Nariyara Village, Akaltara Tehsil, Janjgir - Champa District,

Chhattisgarh

Tel (Site): 07817-284001

Registered Office

8-2-293/82/A/431/A, Road No. 22, Jubilee Hills,

Hyderabad - 500033. Tel: +91-40-23559922-25,

Tel: +91-40-23558701 Fax: +91-40-23559930

GSTIN-22AADCK6843M1ZB

Ref.: CECB, BILAS [POKN/2500168/692

Date: 22.05.2018

To The Regional Officer,

Chhattisgarh Environment Conservation Board, Vyapar Vihar, Near Pt. Deendayal Upadhyaya Park, Bilaspur, Chhattisgarh.

Sub: - Submission of Environment Statement in Form-V for FY 2017-18-Reg.

Ref: - i) Consent for Operation No. - 763/TS/CECB/2015 Dt. 22.05.2015

- ii) Environmental Clearance No. (Amendment & Extended of Validity)-13012/44/2008-IA.II (T) Dt.19.04.2018 & J-13012/44/2008-IA.II (T), Dt.19.10.2009
- iii) Rule 14 of Environmental (Protection) Rule, 1986

Sir,

Inviting your reference on the above mentioned subject, please find enclosed herewith the 'Environmental Statement in Form-V' duly filled under Rule-14 of the Environmental (Protection) Rules, 1986 for our Unit-1, 2 & 3 (3 x 600MW) in M/s KSK Mahanadi Power Company Limited for the Financial Year ending 31st March, 2018.

Submitted for your kind Perusal and records please.

Thanking You, Yours faithfully,

For KSK Mahanadi Power company Limited

(Authorized Signatory)

Copy to: i) The Member Secretary, CECB, Raipur, Chhattisgarh.

ii) The Addl. PCCF(C), MoEF &CC, Regional Office (WCZ), Nagpur, Maharashtra

Encl: Environmental Statement in Form-V- FY 2017-18.



ANNEXURE-X



Photographs of Online Monitoring equipments installed in KMPCL

1. CEMS installed at Stack-I



2. CEMS installed at Stack-II





3. **CEQMS for Guard Pond Water**



4. CAAQMS installed at 04 different locations inside Campus.







Installed at Camp Office



Installed at Sub Station



Installed back side to switch yard



<u>Display Board showing online status of Environmental Parameters at Main Gate</u>

