



Ref. No.: -HIL/EC/GP-IV/4/2016/ 277

Date: 29.11.2016

✓ Shri Kanwarjeet Singh (IFS)  
Additional Principal Chief Conservator of Forest,  
Ministry of Environment Forests & Climate Change  
Regional Office, (West Central Zone)  
Ground Floor, East Wing  
New Secretary Building,  
Civil Lines, Nagpur -440001

**Sub.: Six Monthly Environment Clearance Compliance Status Report for Gare Palma - IV/4 coal mine along with Environmental Monitoring reports of Ambient Air, Water, and Noise etc.**

Ref. Environment Clearance No. J-11015/183/2010-IA.II (M) Dated: - 16th April 2015.

Sir,

With reference to subject matter on referred letter, we are submitting the six monthly Environmental Clearance Compliance status report along with environmental monitoring reports for Ambient Air, Water, Noise, during the period of April 2016 to September 2016.

This is for your kind information please.

Thanking you,

Yours faithfully,  
For Hindalco Industries Limited,

*Hindalco*  
*Raj Kishore Singh*  
**(Raj Kishore Singh)**

Asst. Vice President

Gare Palma IV/4,

Village: Banjhikhol, Tehsil: Tamnar, District: Raigarh, Chhattisgarh – 496107.

**Encl. : Six Monthly Environmental Clearance Compliance Report as Annexure-A.**

CC To:

1. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, Naya Raipur Chhattisgarh.
2. Zonal Officer, Central Pollution Control Board, Sahkar Bhawan, 3rd Floor, North T.T. Nagar, Bhopal – 462 003 (M. P.)
3. Regional Officer, Chhattisgarh Environment Conservation Board (CECB), T.V. Tower Road, Raigarh (C.G.)

**HINDALCO INDUSTRIES LIMITED**

Gare Palma IV/4 & IV / 5  
Vill. & P.O. Milupara, Tehsil - Tamnar  
Dist : Raigarh 496 107, Chhattisgarh

**REGISTERED OFFICE**

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**Corporate**

**Identity No.** L27020MH1958PLC011238



Compliance Report on Environment Clearance for Gare-Pelma IV/4 coal mining project given by Ministry of Environment Forests & Climate Change **vide letter No. – J-11011/183/2010-IA.II (M) Dated: - 16th April 2015** for Under Ground & Opencast Mining of Coal 1.0 Million Ton/Annum Production Capacity.

Sr. No.	Conditions	Status
1	Any change in scope of work will attract the provisions of Environment Protection Act (EPA), 1986 and Environment Impact Assessment Notification, 2006 in conjunction with the subsequent amendments/circulars.	Noted please.
2	All conditions stipulated in the EC letter No.J-11015/183/2010-IA.II (M) dated 12 <sup>th</sup> March, 2013 shall remain unchanged.	Noted please.
3	The successful bidder shall be liable, if any, for any act of violation of the EPA 1986/EIA Notification 2006/subsequent amendments and circulars which it has inherited during the transfer.	Noted please.
4	Successful bidder shall be liable for compliance of all court directions, if any.	Noted please.

Compliance Report for Environment Clearance for Gare-Pelma IV/4 coal mining project given by Ministry of Environment & Forests **vide letter No. – J-11011/183/2010-IA.II (M) Dated: - 12th March 2013** for Open Cast & Under Ground Mining of Coal 1.0 Million Ton/Annum Production Capacity.

Sr. No.	EC Conditions	Compliance status
1	The Maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted for i.e. 0.48 MTPA to 1.0MTPA of which 0.4 MTPA OC and 0.6 MTPA UG in ML area of 701.512 ha)	Agreed and will be complied accordingly.
2	The calendar plan should be uploaded on MOEF website.	Agreed.
3.	The coal transportation by road is up to 270 km at Raipur by road presently with tarpaulin covered trucks and partially by rail up to Bhupdevpur. After new siding comes up which is approximately 3 km away for changing over to rail transport. The coal transportation by road should be by mechanically covered trucks. The mode of transportation shall be shifted to by rail by 2017.	This particular condition is not applicable to us since, as per Vesting order by Ministry of Coal, GOI, Coal will be used in the captive power plant of HIL located at Hiraikud and Lapanga in District Sambalpur, Odisha and mode of





		transportation will be by road. We are transporting the coal by road by covered trucks.
4.	Karanj should be deleted from the list of native species for plantation program.	Karanj will not be planted in mining area.
5	Rs. 5/T of coal/annum till the end of life of project with the escalation factor of coal production.	As per condition Rs. 5 /T is being utilized under CSR activities under guidance of district collector Raigarh.
6	No external OB dump will be left after mine operation and shall be backfilled in the mine void.	Agreed and will be complied as per Mining Plan and Mine Closure Plan accordingly.
7	The proponent shall take necessary action on the issues raised during public hearing.	Most of the issues raised during public hearing has been addressed by the company.
8	The coal will be used in existing steel plant of proponent.	This particular condition is not applicable to us since, As per Vesting order by Ministry of Coal, GOI, Coal will be used in the captive power plant of HIL located at Hirakud and Lapanga in District Sambalpur, Odisha.
9	The Mine Planning is done in such manner that underground mining is proposed below forest land and opencast mining under Government waste land /agriculture land. Hence tree cutting from forest land is not proposed during expansion proposal. However if required plantation will be done 10 times of tree felling in the project affected area.	Mining is being done in such manner that underground mining is below forest land and opencast mining under Government waste land /agriculture land. Planation in the mine lease area is being carried out @2500 plant/ha.
10	Kelo river and Bendra Nallah shall not be disturbed.	Kelo river and Bendra Nallah will not be disturbed.
11	External OB dump of 0.67 million cubic meters will be created as reported in closure plan of first year. This external dump will be re handled and backfilled in subsequent years. There will be no external dump left after the mine operation.	The external dump will be re handled and backfilled in subsequent years. There will be no external dump left after the mine operation.
12	Biological reclamation of all external dumps will be done progressively after leveling these dumps. This will provide stability and prevent soil erosion from dumps. The total top soil generated (1.14 m.cum B) during the development of mine will be stacked separately in a soil stack pile in between the pit and the surface dump over an area of 7.12 Ha.	Biological reclamation of all external dumps will be done progressively after leveling these dumps. This will provide stability and prevent soil erosion from dumps. Top soil generated during mining activities are being kept at separated location and during



		biological reclamation it is being used.
13	The report Titled " Flora and Fauna and conservation plan for endangered species of Gare-IV/8 coal block approved by The PCCF (Wildlife) of Chhatisgarh, dated 22.11.2011 states that there is no national park, tiger reserve, eco-sensitive zones within 15 km radius. It was informed that this area is neither affected by elephant corridor exists. However, there are occasional presence of elephants and other wild lives.	Noted please.
14	A Wildlife Conservation Plan for the conservation and protection of wildlife in the study area has been approved at a cost of Rs. 1.0 crore and shall be implemented by the proponent in consultation with Department of Forest and Wildlife, Govt. of Chhatisgarh. The WLCP shall be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and poaching, awareness campaign of villagers in the study area and compensation in case of man animal conflicts. The status of implementation of WL Conservation Plan including budgetary provision of various activities and status of expenditure shall be regularly, uploaded on the website of the forest and wildlife Department of Government of Chhatisgarh and of the project proponent and the status shall be regularly reported to this Ministry and the MoEF Regional Office, as part of the compliance report.	Rs.One crore has been deposited to state forest department by the prior allottee against Wildlife conservation plan.
15	As per the approved plan of the Flora and Fauna and Conservation plan for endangered speoies of Gare IV/4 coal block' and recommended the PCCF (Wildlife), Rs. One crore be deposited, at one time. With the department of forest and wildlife, Govt. of Chhatisgarh for the implementation of the plan.	Rs.One crore has been deposited to state forest department by the prior allottee against Wildlife conservation plan.
16	The project authority shall also participate in a Regional action plan of the State Government for the conservation of flora and fauna found within the study area, in addition to the above funds shall also contribute financially for implementation of	The company will participate in regional action plan of the State Government for the conservation of flora and fauna of the area, as per directives of the authority.





	RWLCP.Habitat development such as grassland/conservation measures along the migratory route/habitats of elephants found/visiting the area shall form a part of the regional action plan.	
17	It will be used for growing plants along the fringes of the side roads and reclamation of external dump and backfilled area. The topsoil stockpile will be low height not exceeding 6 m and will be made use for concurrent filling without keeping the top soil for a long period.	Plantation all along the road side will be carried out by the company. The topsoil stockpile will be low height not exceeding 6 m and will be made use for concurrent filling without keeping the top soil for a long period.
18	The OB dump for the South Quarry dump will be spread over 13.75 Ha. area on the south and eastern part of south quarry while the mining operation will start from north and advance towards south and west. Part of OB excavated from the mine from 1st year and part of 2nd year (3.91 Mm <sup>3</sup> ) will be accommodation in it including top soil for afforestation. The height of dump achieved during 1st and 2nd year will be 6 m to 20 m respectively.	The over burden management will be done as per approved mining plan.
19	The O.B. left in external dump will be re handled and backfilled in the void after the extraction of coal is completed, this will make the operation of UG mining safe as no water will be logged in the quarry. The OB will be temporarily stored which primarily consist of sand stone and shale which does not contain any heavy metal. As per the reclamation plan, the entire OB will be re handled and biologically reclaimed with local grass to minimize fugitive emission as well to control surface runoff.	The over burden management will be done as per approved mining plan. As per the reclamation plan, the entire OB will be re handled and biologically reclaimed with local grass to minimize fugitive emission as well to control surface runoff.
20	Topsoil generated in the balance life of mine should be stacked properly with proper slope at earmarked site (s) and should not be kept active and shall be used for reclamation and development of green belt.	Topsoil to be generated in the balance life of mine will be stacked properly with proper slope at earmarked site (s) and will not be kept active and will be used for reclamation and development of green belt.
21	OB generated in the balance life of mine should be stacked at earmarked one external OB dumpsite within ML area. The ultimate slope of dump shall not exceed 28°. Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional offices located at	OB dump is being stacked at earmarked dump site within the lease area. The ultimate slope is being maintained. Monitoring and management of reclaimed dump site until the vegetation becomes self-sustaining is being carried out. The compliance report on OB management plan will be



	Bhubaneswar on yearly basis. The area of OB dump should be reduced. The grass turfing should be done on OB dumps.	submitted to Regional office Bhopal on yearly basis.
22	Adequate numbers of sprinklers should be provided on both the side of road to minimize pollution.	Adequate numbers of truck mounted water sprinklers and fixed type sprinklers has been engaged / installed for the haul road and transportation road.
23	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly. Garland drains (size, gradient, length,) and sump capacity should be designed 50 % safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.	Catch drains and siltation ponds of appropriate size has been constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected is being utilized for watering the mine area, roads, green belt development, etc. the drains are regularly de-silted and maintained properly. Garland drains has been constructed with proper size, gradient and length.
24	Dimension of retaining wall at the toe of the dumps and OB benches within the mine to check run -off and siltation should be based on rain fall data.	Retaining wall at the toe of the dumps will be constructed. OB benches within the mine to check run -off and siltation is being maintained by constructing garland drain and siltation pond on the basis of rain fall data.
25	Water sprinkling system (mist spray type) shall be provided to check fugitive emission from conveyor system, haulage roads and transfer points.	Water sprinkling arrangement has been maintained at all haul roads, conveyor system, loading and unloading points. Thus fugitive dust emission are under control.
26	Fixed sprinkler shall be installed at pit top truck loading hoppers in all the three mines, siding for dust control during coal loading. Adequate numbers of sprinklers should be provided on both the sides of road to minimize dust pollution.	As per requirement, fixed type water sprinklers has been provided in the mines.
27	Drills should be wet operated only.	Wet drilling is under practice.
28	An action plan for mine closure with details of area, depth, voids and details of abandoned mine should be submitted to the Ministry.	Noted please.
29	Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly of	Controlled blasting is under practice with use of delay detonators.





	rocks and boulders should be implemented.	
30	Transportation shall be by covered trucks of higher capacity (25 –tonne) and loading shall be by siding. Mechanically covered trucks should be provided for transportation of coal.	Transportation is being done with tarpaulin covered trucks.
31	Area brought under afforestation from the three mines shall be by planting native species in consultation with local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	Planation in mines area is being done. At present around 55000 nos. of trees have been planted. Species planted are Gulmohar, Ashoka Aam, Imli, Shisam, Eucalyptus, Neem, Jamun, Accassia spp. etc. in consultation with local DFO.Plantation is being carried out @2500 per hectare.
32	Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.	Under Harihar Chhattisgarh program company has deposited Rs. 10.0 Lacs for plantation to state forest department, Gov. of C.G. Extensive plantation will be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.
33	Mine discharge water shall be treated to meet the prescribed standards before discharge into the natural water course/agriculture. The quality of water discharge shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.	Settling pond with chemical dosing arrangement has been provided for the mine seepage water treatment before discharge for the agriculture purpose. <b>The water quality analysis report is enclosed as Annexure –I</b>
34	No ground water shall be used for mining activities; additional water required if any shall be met from mine water or by recycling /reuse of water from existing activities and from rainwater harvesting measures. The project authority shall meet water requirement of nearby village (s) in case the village wells go dry to dewatering of mine.	For the mining activity only mine seepage water is used after treatment in ETP. To meet the water requirement of nearby villages company is providing treated water through pipeline.
35	Regular monitoring of groundwater level and quality of the study area shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (August), Post- monsoon (November), and winter (January) seasons and for quality including Arsenic and Fluoride during the month of may. Data thus collected should be submitted to the Ministry of Environment & Forests and to the	Regular monitoring of groundwater level and quality of the area is being carried out by establishing a network of existing wells. The Ground water level and quality Monitoring report is enclosed as <b>annexure-II</b> .



	Central Pollution Control Board /SPCB quarterly within one month of monitoring. Rain water harvesting shall be undertaken in case monitoring of water table indicates a declining trend.	
36	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural pattern, water bodies, vegetation, structure, roads and surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil/suitable material.	In Gare Palma IV/4 coal mine the method of mining is Board & Pillar. However, Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural pattern, water bodies, vegetation, structure, roads and surroundings is being done by internal expert team. So far no any subsidence movement has been observed. During the observation no any subsidence movement has been observed. In future, if any subsidence movement, occurred then appropriate effective corrective measures will be taken to avoid loss of life and material. Cracks will be effectively plugged with ballast and clayey soil/suitable material.
37	Sufficient coal pillars shall be left un-extracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Sufficient coal pillars will be left un-extracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence.
38	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	High root density tree species will be selected and planted over areas likely to be affected by subsidence.
39	Depression due to subsidence resulting in water accumulating within the low laying areas shall be filled up or drained out by cutting drains.	Depression due to subsidence resulting in water accumulating within the low laying areas will be filled up or drained out by cutting drains, if any
40	Solid barriers shall be left below the village, roads falling within the blocks to avoid any damage to the roads.	Solid barriers is being left below the village, roads falling within the blocks to avoid any damage to the roads.
41	No depillaring operation shall be carried out below the roads and habitation area found within the lease.	No depillaring operation will be carried out below the roads and habitation area found within the lease.





42	The proponent shall ensure to undertake and provide the costs incurred for taking up remedial measures in case of soil.	Cost incurred for taking remedial measures in case of soil will be borne by the company.
43	Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.	Extensive plantation will be done near the agriculture area as per availability of land.
44	ETP shall be provided for workshop, CHP, if any. Effluent shall be treated to conform to prescribe standards in case discharge in to any water course outside the lease. The quality of water discharged shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.	Water treatment facility has been provided in mines for the seepage water treatment. The quality of treated water is being monitored. <b>The water quality analysis report is enclosed as Annexure -I</b>
45	A detailed plan for CSR with specific budgetary allocation (capital and revenue) for various skill development and alternate livelihood programmes and schemes shall be implemented and the impacts activities under CSR monitored based on in a scientific methodology. An amount of Rs. 5 per tonne of coal produced with escalation factor shall be utilized for the CSR activities for the adjoining villages for the balance life of project apart from one time capital expenditure. The details of CSR undertaken along with budgetary provisions for the village wise various activities and expenditure thereon shall be uploaded on the company website every year. CSR Audit should be carried conducted annually.	Rs. 5/- per ton of coal produce is being utilized for CSR activities under the guidance of District Collector, Raigarh. <b>The copy of CSR Expenditure detail is enclosed as annexure-III.</b>
46	A special corpus fund either at company level or in CIL/MOC be provided for the reclamation of abandoned and degraded areas.	Escrow account has been opened for the reclamation of abandoned and degraded areas in the mine lease.
47	For monitoring land use pattern and for post mining land use, a time series of land use, maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in the three years (for any one particular season which is consistent in the time series). And the report submitted to MOEF and its regional office at Bhopal. The post mining land use shall be that out of the total 701.512 ha area, 57.73 ha area will be under plantation. 319.65 Ha area for public use, 324.132 ha area shall be undisturbed.	Study report on digital processing of entire mine lease has been carried out and submitted as per schedule.
48	A Final Mine closure plan along with a plan for	A Final Mine closure plan along



	habitat restoration and with details of corpus Fund shall be submitted to the Ministry of Environment & forest five years before mine closure for approval. The species selected for habitat restoration for post mining and shall include a specific plan for development of agro forestry using a mix native species found in the study area.	with a plan for habitat restoration and with details of corpus Fund will be submitted to the Ministry of Environment & forest five years before mine closure for approval.
49	A special corpus fund either at company level or in CIL/MOC be provided for reclamation of abandoned and degraded area.	Escrow account has been opened for the reclamation of abandoned and degraded areas in the mine lease.
50	The possibility of sand stone, wherever is present in the OB as per lithology report, be explored and be provided to locals free of cost.	As per availability the sand stone will be provided to the locals free of cost.
51	After extraction of coal is completed, the OB left will be completely rehandled and backfilled the voids. This will be achieved by rehandling of OB Dumps in the area. Contamination of ground water and surface water and occupational and other diseases due to the mining operation.	After extraction of coal is completed, the OB left will be completely rehandled and backfilled the voids.
52	Corporate Environment Responsibility: a)The company shall have a well laid down Environment Policy approved by the Board of Directors. b)The Environment Policy shall prescribe for standard operating process/ procedures to bring into focus any infringements/deviation/violation of the environmental of forest norms/conditions. c)The hierarchical system or administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. d)To have proper checks and balances, the company shall have a well laid down system of reporting of no-compliances/ violations of environmental norms to the Board of Directors of the company and /or shareholders at large.	Under the corporate responsibility. The company have a well laid down Environment Policy approved by the Board of Directors. The Environment Policy has been prescribe for standard operating process / procedures to bring into focus any infringements/deviation/violation of the environmental of forest norms/conditions. The hierarchical system or administrative order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions has been furnished.
<b>B. General Conditions</b>		
1	No change in mining technology and scope of working should be made without prior approval of the ministry of Environment & Forest.	No change in mining technology and scope of working will be made without prior approval of the ministry of Environment & Forest.
2	No change in the calendar plan for quantum of	No change in the calendar plan for





	mineral coal and waste should be made.	quantum of mineral coal and waste will be made.
3	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2, and NOx monitoring. Location of the stations shall be decided based on meteorological data topographical features and environmentally and ecologically sensitive targets in consultation with the state pollution Control Board. Monitoring heavy metals such as Hg, As Ni, Cd, Cr, etc. carried out at least once in six months.	Four ambient air quality monitoring stations have been established and regular monitoring is being carried out. <b>Monitoring Report is enclosed as Annexure -IV.</b>
4	Data on ambient air quality (PM10, PM2.5, SO2, and NOx) and heavy metals such as Hg, As, Ni, Cd, Cr, and other monitoring data shall be regularly submitted to the ministry including its Regional office and to the state pollution Control Board and the Central Pollution Control Board once in six month. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report.	Four ambient air quality monitoring stations have been established and regular monitoring is being carried out. <b>Monitoring Report is enclosed as Annexure -IV.</b>
5	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operation of HEMM, etc should be provided with ear plugs/muffs.	Ear muffs/plugs has been provided to the all workers engaged in blasting and drilling operations. <b>The Noise monitoring report is enclosed as Annexure-V.</b>
6	Industrial wastewater (workshop and wastewater from the mine) should be properly collected treated so as to conform to the standards under prescribed GSR 422 (E) dated 19 <sup>th</sup> May 1993 and 31 <sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	Settling pond with chemical dosing arrangement has been provided for the mine seepage water treatment.
7	Vehicular emission should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.	Regular monitoring of vehicular emission is being done and it is under control. The PUC certificate has been ensured for all the vehicles engaged in mining activities.  The vehicle used for transporting the minerals are covered and optimally loaded.



8	Monitoring of Environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control board and data got analyzed through a laboratory recognized under EPA Rules, 1986.	Monitoring of Environmental quality parameters are be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control board.
9	Personnel working in dusty area shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspect.	Personnel working in dusty areas are provided with protective respiratory devices and they have also been provided with adequate training and information on safety and health aspect.
10	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.	Occupational health surveillance programme of the workers is being undertaken periodically to observe any contraction due to exposure to coal dust and corrective measures will be taken accordingly.
12	A separate environment 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 company.	A separate environment management cell with suitable qualified personnel have been set up under the control of a senior Executive. Copy enclosed as annexure -VI.
13	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this ministry and it's Regional Office at Bhubaneswar.	The funds earmarked for environmental protection measures has been kept in separate account and not been diverted for other purposes.
14	The project authority shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State pollution control Board and may also be seen at the website of the ministry of environment & forest at <a href="https://envfro.nic.in">https://envfro.nic.in</a> .	Already Complied.
15	A copy of environmental clearance letter shall be marked to concern panchayat / Zila Parishad, Municepal Corporation or Urban local body and local NGO, if any., from whom any	Already Complied.





	suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.	
16	A copy of environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the regional office, District Industry Sector and Collector's office/Tehsildar's office for 30 days.	Not applicable to us.

**Result of Treated Water Quality Analysis****(ETP Treated Water)****(From April -16 to September -16)**

S.NO.	Parameters	Unit	Results						
			Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	Average
01	pH Value	-	7.71	7.56	7.21	7.35	7.42	7.38	7.44
02	Suspended Solids (SS)	Mg/l	26	27	35	22	29	32	29
03	Oil & Grease	Mg/l	Nil	Nil	Nil	Nil	Nil	Nil	Nil
04	Free Chlorine	PPM	Nil	Nil	Nil	Nil	Nil	Nil	Nil





## Annexure-II

**Ground water level monitoring in and around the Coal Mine area****(Month: April 16 & September 2016)**

Sr.No.	Location	Types of structure	Water level (MBGL) November 15	Water level (MBGL) January 16
1	Bankheta (Near HIL Office)	Borewell	5.89	6.20
2	Banjikhoh (Near Office)	Borewell	10.40	11.50
3	Milupara (PHC-HIL)	Dugwell	4.36	4.56
4	Urba (Near Intermediate school)	Dugwell	4.96	5.78
5	Sakta (Near Primary School)	Dugwell	2.18	2.20
6	Sidarpara (Primary School compound)	Dugwell	6.10	6.30



## CSR Expenditure Details

<b>CSR Expenditure Details FY 2016-17</b>			
<b>Sl. No</b>	<b>Activities</b>	<b>Projects</b>	<b>Apr to Mar 16</b>
1	Health care, eradicating hunger, poverty and malnutrition	Quality/Support Program	498,805.00
2	Promoting education and employment enhancing vocation skills	Education support programs	304,500.00
		Vocational and Technical Education	25,000.00
3	Social Empowerment ,promoting gender equality, empowering women	Social Security	264,789.00
4	Ensuring environmental sustainability	Natural Resource conservation programs & Non-conventional Energy	28,000.00
5	Protection of National Heritage, Art and Culture	Promotion of Heritage/Art and Culture/Sports	425,001.00
6	Promotion of Rural Sports	Promotion of Sports	70,500.00
			<b>1,616,595.00</b>





## Annexure-IV

**Results of Ambient Air Quality Monitoring**

(From April -16 to September 16)

Sr.No.	Location	Parameters	Results ( $\mu\text{g}/\text{m}^3$ )						
			Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	Average
1	Near Office Area, Banjikhoh	PM <sub>10</sub>	65	63	64	60	61	47.25	60
		PM <sub>2.5</sub>	11	13	14	12	13	23.78	14
2	ETP Area, Banjikhoh	PM <sub>10</sub>	62	62	63	61	60	21.72	55
		PM <sub>2.5</sub>	12	11	17	11	11	19.80	14
3	Near Office Area, Bankheta	PM <sub>10</sub>	61	61	60	57	58	30.21	55
		PM <sub>2.5</sub>	12	10	16	14	12	23.84	15
4	Near Pit office, Bankheta	PM <sub>10</sub>	63	64	65	63	61	42.36	60
		PM <sub>2.5</sub>	10	11	13	12	14	36.76	16



Annexure-V

**Result of Noise Monitoring**  
(From April -16 to September - 16)

S. No.	Location		Results dB(A)						Average
			Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	
1	Office Area, Banjikhoh	Day	51	55	52	53	55	59	54
		Night	46	54	49	46	49	58	50
2	Incline Area, Banjikhoh	Day	52	58	57	58	56	69	58
		Night	50	11	50	52	51	68	47
3	Bunker area, Banjikhoh	Day	54	59	58	56	57	72	59
		Night	52	54	54	51	50	68	55
4	Office Area, Bankheta	Day	49	48	47	45	47	60	49
		Night	42	43	41	40	42	58	44
5	DG Set area Banjikhoh	Day	69	63	62	67	63	73	66
		Night	65	58	59	58	58	64	60
6	Weight Bridge Area, Bankheta	Day	48	51	48	52	46	60	51
		Night	43	47	39	45	39	58	45
Standard – Industrial		Day	75						
		Night	70						
Standard – Residential		Day	55						
		Night	45						





## Environment Management Cell



Date: 02.03.2016

## Environment Management Cell

An Environment Management Cell of Gare Palma IV/4 Coal Mine is hereby constituted consisting of the following persons which will take care of Environment related matters such as Pollution Monitoring, Pollution Control, Plantation, Waste management, Awareness & Training Programs etc. in the mine area.

Sr.No.	Name of person	Designation in the mine	Designation in the EMC
1	Raj Kishore Singh	Astt. Vice President	Chairman
2	Dr Vivekanand Mishra	DGM (HR & Admin)	Member
3	Lalit Kumar	AGM (Mines)	Vice -Chairman
4	Arun Gupta	AGM (E & M)	Member
5	Deepak Lenka	AGM(Mines)	Member
6	Tarachand Kumar	Manager (Civil)	Member
7	Sandeep Kumar Mishra	Manager (Environment)	Secretary
8	Mahesh Mahant	Safety Officer	Member
9	Radha Krishna	Astt Manager (Mine)	Member
10	Girija Shankar Tamrakar	Jr Engineer (Env.)	Member

The Environment Cell Meeting will be held on every 5<sup>th</sup> day of the month. All members are requested to be present in the meeting and to discuss on issues related to Environmental Management.

For, Hindalco Industries Limited

**Raj Kishore Singh**  
Chairman (Environment Management Cell)  
Gare Palma Coal Mine IV/4

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Gare Palma IV/4 & IV/5  
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