

Ref. No.: -HIL/EC/GP-IV/5/2016/ 11-159

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/5 coal mine along with Environmental Monitoring reports of Ambient Air, Water, and Noise etc.

Ref. Environment Clearance No. J-11015/ 8/1998-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,

Dipesh Bhatia
29/11/16
(Dipesh Bhatia)
Asst. Vice President
Gare Palma IV/5,
Village: Milupara, 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
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127020MH1958PI C011238



Compliance Report on Environment Clearance for Gare-Palma IV/5 coal mining project Transfer by Ministry of Environment & Forests vide letter no. J-11015/ 8/1998-IA.II (M) Dated: - 16th April 2015 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity

SI 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-11015/8/1998-IA.II (M) dated 31 st August, 2000 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 on Environment Clearance for Gare-Palma IV/5 coal mining project given by Ministry of Environment & Forests vide letter no. J-11015/ 8/1998-IA.II (M) Dated: - 31st August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity

SI no	Specific Conditions	Status
i	Regular Monitoring of subsidence movement on the surface over working areas and impact on water bodies/ vegetation/ structures/ surroundings should be continued till movement ceases completely. In case of observation of any high rates of subsidence movement, appropriate measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clayey soil/ suitable material.	The method of mining at Gare Palma IV/5 coal mine 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. During the observation no subsidence movement has been observed. In future, if any, 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.
ii	Adequate underground barrier should be left in consultation with DGMS. Depillaring to be carried out after taking approval from DGMS	Adequate underground barrier as required are maintained between the working face and the river in consultation with DGMS. Depillaring will be carried out after taking prior approval of the DGMS.
iii	Garland drains should be constructed around the waste rock and ore stockpiles to prevent surface run-off.	Garland drain have been constructed around the coal stock yard to prevent the surface run-off.
iv	A Green Belt of adequate width should be raised by planting the local species along the mine	Planation in mines area is being done. At present around 25000 nos. of trees have been



	boundary, Waste rock dumps, ore stockpile, ventilation fan road and selected open areas in consultation with local DFO/ Agriculture Department. Density of tree should be at least 2500 plants per ha.	planted. Trees species planted are Gulmohar, Ashoka Aam, Imli, Shisam, Eucalyptus, Neem, Jamun, Accassia spp. etc. in consultation with DFO. Plantation has been carried out @2500 per hectare and will also be ensure in future.
v	Compensation to the 14 land losers from whom private land will be acquired should be paid as per the state government norms.	Compensation to the 14 land losers has been paid by the company.
vi	The project authority should conduct a subsidence estimation study and submit the report to the Ministry within six months.	Subsidence estimation study report has been submitted to the Ministry by Prior Allottee.
vii	The project proponent will construct "Check dams "at the sites proposed by the State Ground water Department in their report. While undertaking the proposed mining, the construction of the check dams should be carried out in with Ground water survey department, Government of MP (presently Chhattisgarh) and should have necessary financial provision and technical expertise. This should be communicated to the MoEF and CGWB.	As per requirement the check dams at the site will be constructed in consultation with state forest department and ground water department.
viii	Regular monitoring of the Ground water level and quality should be carried out by establishing a network of existing wells and constructing new Piezometer during the mining operations. The interval of monitoring should be four times a year- Pre monsoon (April to May), Monsoon (August), Post Monsoon (November) and winter (January). The data thus collected may be sent regularly to MoEF and CGWB for information.	Regular monitoring of groundwater level and quality is being carried out by establishing a network of existing wells. Report on ground water level monitoring is enclosed as annexure-I .
ix	Digital processing of the entire lease using remote sensing technique should be regularly once in three years for monitoring land use pattern and report submitted to MoEF and its regional officer.	Study report on digital processing of entire mine lease has been submitted.
x	A detailed mine decommissioning plan should be submitted to the MoEF, five years in advance for approval	Detailed mine decommissioning plan will be submitted to the Ministry of Environment and forests, five years in advance for approval.
B	General Conditions	
i	No change in mining technology and scope of working should be made without prior approval of the MoEF.	Agreed and will be complied accordingly.
ii	No change in the calendar plan including excavation quantum of mineral coal and waste should be made.	Agreed and will be complied accordingly.
iii	Four ambient air quality stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO ₂ , NO _x & CO Monitoring. Location of stations should be decided based on	Four ambient air quality monitoring stations have been established and regular monitoring is being carried out. Monitoring Report is enclosed as Annexure –III .



	the meteorology data, topographical features and environmental and ecologically sensitive targets in consultation with the State Pollution Control Board.	
iv	Data of ambient air quality (RPM, SPM, SO ₂ , NO _x & CO) should be regularly submitted to the Ministry including its Regional Officer at Bhopal (Currently Raipur) and the State Pollution Control Board & Central Pollution Control Board.	Ambient air quality monitoring report is enclosed as Annexure –III .
v	Drill should be wet operated.	Wet drilling is under practice.
vi	Fugitive dust emission from all the sources should be controlled, regularly monitored and the data recorded properly. Water spraying arrangement on haul roads, Wagons, loading dump trucks (loading and unloading) should be provided and properly maintained.	Fixed type water sprinkler has been provided at all along the roads, and loading points etc. to control the fugitive dust emission.
vii	Adequate measures should be taken for control of noise level below 80db in the work environment. Workers engaged in blasting and drilling operation, operations 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, operations of HEMM etc. The Noise monitoring report is enclosed as Annexure-IV.
viii	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform on the standards prescribed under GSR 422 dated 19.05.1993 and 31.12.1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents in to the pond.	Lamella clarifier (ETP) plant has been installed for treatment of mine water. Report on water quality is enclosed as Annexure-V
ix	Acid mine water if any has to be treated and disposed off after conforming to the standards prescribed by the competent authority.	There is no acid mine water. Lamella clarifier (ETP) plant has been installed for treatment of mine water. Report on water quality is enclosed as Annexure-V
x	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board	Environmental laboratory has been established with adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control Board.
xi	Personnel working in dust area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures if needed.	Personnel working in dusty areas are wearing protective respiratory devices and they have also been provided with adequate training and information on safety and health aspect. 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.
xii	A separate environmental management cell with suitable qualified personnel should be set up	Environmental Management cell has been established. Copy enclosed as annexure-VI .



	under the control of a senior executive who will report directly to the Head of the Organization.	
xiii	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to Ministry.	The funds earmarked for environmental protection measures has been kept in separate account and not been diverted for other purposes.
xiv	The Regional Officer of the ministry located at Bhopal (currently Raipur) shall monitor compliance of the stipulated conditions. The project authorities should extent full co-operation to the officer (s) of the Regional Officer by furnishing requisite data information / monitoring reports	Agreed and cooperation will be extended on time to time.
xv	A copy of the clearance letter will be marked to concerned Panchayat/ local NGO if any from whom suggestion / representation has been received while processing the proposal	Complied by Prior Allottee.
xvi	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/ Tehsildar's office for 30 days	Complied by Prior Allottee.
xvii	The project authorities should advertise at least two local newspapers widely circulated around the project one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and the copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the MoEF at http://envfor.nic.in	Complied by Prior Allottee.

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



Annexure –II

Study report on land use pattern

(Under study & finalization)

Annexure –III

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	Milupara Mines (near office area)	PM ₁₀	65	69	65	63	62	23.48	58
		PM _{2.5}	13	13	15	14	13	17.41	14
2	Kondkel ETP Area	PM ₁₀	59	67	68	66	64	41.42	61
		PM _{2.5}	11	11	13	12	13	22.05	14
3	HIL Staff Quarter	PM ₁₀	61	65	63	62	61	19.80	55
		PM _{2.5}	11	12	13	13	14	11.29	12
4	HIL Colony Kondkel	PM ₁₀	62	68	62	30	61	27.47	52
		PM _{2.5}	12	10	12	13	15	20.14	14

**Waste Water Analysis****(From April 2016 to September 2016)****Location: ETP treated (Outlet) sample**

S.NO	Parameters	Unit	Results						
			Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	Average
01	pH Value	-	7.44	7.71	7.42	7.31	7.42	7.67	7.50
02	Suspended Solids (SS)	Mg/l	26	21	36	38	35	28	31
03	Oil & Grease	Mg/l	Nil	Nil	Nil	Nil	Nil	Nil	Nil
04	Free Chlorine	PPM	Nil	Nil	Nil	Nil	Nil	Nil	Nil



Noise level Monitoring
(From April -16 to September 16)

S.N	Locations	Noise Level	Results in dB(A)						
			Apr'16	May'16	Jun'16	Jul'16	Aug'16	Sep'16	Average
01	Milupara Office Area	Day	56	56	53	52	50	66	56
		Night	54	49	44	41	40	62	48
02	Kondkel Office Area	Day	56	54	52	51	50	70	56
		Night	54	48	41	40	41	68	49
03	HIL Staff Quarter	Day	45	41	45	47	46	68	49
		Night	39	39	39	40	42	64	44
04	HIL Colony - Kondkel	Day	43	45	46	48	49	66	50
		Night	41	42	41	43	43	63	46
05	Milupara Bunker area	Day	54	56	52	50	51	72	56
		Night	52	51	50	47	46	63	52
06	Milupara area near incline	Day	59	58	57	55	54	76	60
		Night	57	53	51	52	51	67	55
07	Kondkel Bunker area	Day	60	57	56	59	62	66	60
		Night	58	55	53	55	58	64	57
08	DG Set area	Day	69	73	71	72	73	72	72
		Night	67	68	67	69	70	63	67
09	Milupara Mines Weighbridge	Day	57	51	65	64	66	68	62
		Night	55	47	61	60	63	66	59
10	Sidarpara Village	Day	43	40	42	43	41	45	42
		Night	38	38	38	39	38	42	39

**Environment Management Cell**

Date: 02.03.2016

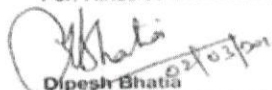
Environment Management Cell

An Environment Management Cell of Gare Palma IV/5 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 EMD Cell
1	Dipesh Bhatia	Astt Vice President	Chairman
2	Dr. V. Mishra	DGM (HR & Admin)	Member
3	A.N. Swamy	DGM (Mines)	Vice -Chairman
4	S. K. Jain	DGM (E & M)	Member
5	B. Gopal Krishna	AGM (MINES)	Member
6	Ajay Agrawal	AGM (Commercial)	Member
7	Dipankar Khan	DGM (Geology)	Member
8	Sandeep Kumar Mishra	Manager (EMD)	Secretary
9	B.P. Chandra	Jr. Engineer (Civil)	Member
10	Girija Shankar Tamrakar	Jr. Engineer (EMD)	Member

The Environment Cell Meeting will be held on every 4th 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


Dipesh Bhatia
Chairman (Environment Management Cell)
Gare Palma IV/5 Coal Mine

HINDALCO INDUSTRIES LIMITED
Gare Palma IV/4 & IV/5
VII & P.O. Milupara, Tehsil - Tamnar
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**CSR Expenditure Details FY 2016-17**

Sl.No.	Activities	Projects	Total Apr to Sep 16
1	Health care ,eradicating hunger, poverty and malnutrition	Curative Health care program	77556
2	Promoting education and employment enhancing vocation skills	Education support programs	355466
3	Social Empowerment ,promoting gender equality, empowering women	Awareness Programmes	40000
5	Protection of National Heritage,Art and Culture	Promotion of Heritage/Art and Culture/Sports	360000
7	Promotion of Rural Sports	Promotion of Sports	55501
Total:			888523