Six Monthly EC Compliance Report

Period: April to September, 2017



MURGABEDA IRON ORE MINES

M/s. D. R. PATNAIK

At -Boneikela, PO - Joda,
Dist. - Keonjhar, Odisha - 758 034
www.miom-drp.com

Six Monthly EC Compliance Reports Of

Murgabeda Iron Ore Mine of M/s. D. R. Patnaik

For the Period

April- 2017 to September- 2017

SI.No	SPECIFIC CONDITIONS	PRESENT STATUS			
1	The applicant (Project Proponent)	The mine is not in operation since dated			
	will take necessary measures for	18 th April 2010, for want of forest/statutory			
	prevention, control and mitigation	clearance. However, the project			
	of Air Pollution, water pollution,	proponent has recently obtained the			
	noise pollution and land pollution	Stage-I Forest Clearance Vide letter No.10			
	including solid waste management	F (cons) 498/2011-17321/F & E dated			
	as mentioned by him in form-I, final	20.9.2014. Adequate measures have been			
	EIA reports and Environment	taken by providing retaining wall along			
	management Plan (EMP) in	with garland drain all around the mines			
	compliance with prescribed	dump areas to prevent mines runoff water			
	statutory norms and standards	to the nearby water bodies. Other			
	,	necessary measures have also been			
		implemented like gully plugs at regular			
		intervals etc. There are no such OB dumps,			
		the sub grade dumps are stabilized at ear			
		marked area with proper sloping and			
		terracing, for better stabilization. The			
		enclosed photos are witnessing the above.			
		The photo copy of the same is enclosed as			
		photo-1 & 2. Dump details are given in			
		Annexure - 1			
2	The applicant will take necessary	Different projects has undertaken in			
	steps for socio economic	consultation with "JANASADHANA" for the			
	development of the people of the	socio-economic development of the local			
	area on need based assessment for	people belongs to adjoining villages. A			
	providing employment, education,	detailed implementation status report of			
	health care, drinking water and	the same is given in Annexure - 2			
	sanitation, road and communication	-			
	facilities. After a detailed primary				
	Socio-Economic survey in core zone				
	and buffer.				
3	The applicant will comply with the	We have full-filled the commitment			
	points, concerns and issues raised	regarding the demands raised during the			
	by the people during public hearing	public hearing and compliance are made			
	on 29th June, 2009 in accordance	as per the commitments. All the public			
	with the commitments made by him	hearing issues has been complied as per			
	thereon.	the commitment in phased manner like			
		development of peripheral activities i.e.			
		Development/ renovation of the			
		Murgamahadev temple, guard wall all			
		along nallah, established environment cell,			
		education, drinking water, road, street			

		light, livelihood etc.		
4	The applicant will take statutory clearance/approval/permissions from the concerned authorities in respect of his project as and when required.	Necessary statutory clearances / approval / permissions from the concerned authorities have been achieved say for; Consent to operate from SPCB, Ground Water permission from CGWA, Hazardous waste authorization, approved mining plan from IBM, etc.		
monitoring, the applicant will submit submitted herewith for the so half-yearly compliance report in period April to September				
6	The core zone should be monitored intensively with no. of stations as prescribed by CPCB, Delhi and unit of pollutant level should be expressed as NAAQ of CPCB, Delhi. The detail methodology adopted for analysis of samples shall be cleared indicated	The mine is not in operation since dated 18th April 2010, for want of forest/statutory clearance. There is provision of monitoring of AAQ in the core as well as buffer zone of the ML area. Monitoring of AAQ used to carried out every month except during monsoon. The monitoring report was carried as per NAAQs notifications made by the CPCB. The monitoring location is enclosed as Annexure -4.		
7	The proponent shall submit ground toothing baseline data on flora & fauna and CSR activities already carried out within three months to the SEIAA.	The site specific Wild Life Conservation Plan has been prepared by Mr. P.K. Sarangi, Rtd. IFS Officer & got approved by PCCF (Wildlife), Chief Wildlife Warden, Odisha. The project has estimated cost of Rs. 38.70 Lakhs which includes cost for both buffer zone i.e. Rs. 25.40 Lakhs and core zone i.e. Rs. 13.30 Lakhs for the conservation and management of wildlife. The project proponent has constructed check dam & check weirs to restrict the mixing of undesired substances in nearby streams & also established guard wall		

		along the sides of nallahs. The copy of the same is attached as Annexure - 5 . A detailed CSR activity on the same got submitted.				
8	Adequate buffer zone shall be maintained between two consecutive mineral bearing deposits.	mines area and the project has maintained the 7.5 m width of safety zone around the ML area and following as per the approved mining plan/scheme. Due to the incorporation of better & efficient machineries and latest technologies, it is ensured that zero wastes				
9	Zero waste mining concept shall be implemented either by putting up pelletization plant or disposal of low grade ores/fines to prospective buyers.					
10	The following shall be implemented viz. (a) dump run off should be diverted into setting ponds until it is clear (b) adequate rain water harvesting and ground water recharging facilities should be developed in the core zone, (c) attempt should be made to achieve zero water balance.	 a. Dump run off are being diverted to mines pit area and balance quantity is channelized to settling pits with proper checks before disposal to natural water bodies. b. The project has implemented the roof top rain water harvesting structures and settling pits cum harvesting structures in the mines areas towards recharge of the ground water. c. Steps have been taken to achieve zero water balance like implementation STP for treatment of domestic effluent and reuse of the treated water for mines dust suppression and nearby gardening purposes. The photo of the same is enclosed as Photo 3 & 4 				
11	Maintenance of roads through which transportation of ores are undertaken shall be carried by the project regularly at its own cost.	The project has black topped the transportation approach village roads along with the other projects and regular maintenance of the main approach road along with the mines haul roads are being				

		carried out. Photo no 05.			
12	Fugitive dust generation shall be controlled. Fugitive dust emission shall be regularly monitored at locations of nearest human habitation (including schools and other public amentias located nearest to sources of dust generation as applicable) and records shall be submitted to the SEIAA. Orissa.	As the project is not operation, there is no fugitive dust emission monitoring. Monitoring of AAQ was carried out in different locations of nearest human habitation in consultation with SPCB except during monsoon.			
13	Transportation of ore shall be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore /dust takes place.	roads to ensure that the trucks should no			
14	Rain water harvesting shall be undertaken to recharge the ground water source.	In this regard KRG Rain Water foundation, Chennai got engaged in consultation with Regional Director, CGWB, and Bhubaneswar and roof top rain water harvesting structures got implemented towards augmentation of ground water in the camp area. The photo of the same is enclosed above as above photo no. – 03 & 04.			
15	Monitoring of ground and surface water quality shall be regularly conducted and records should be maintained and data shall be submitted regularly to SEIAA, Orissa.	The mine is not in operation since dated 18th April 2010, for want of forest/statutory clearance. There is provision of monitoring of the ground water quality at 5 locations namely, Bileipada village, Mahadev nasa village, Deojhar village, Daldir & Murgabeda as well as monitoring of the surface water quality for surface water bodies i.e. Baitarini River, Suna River, Mahadev Nallah. The records were maintained. The registers are being maintained for monitoring parameters.			

16	The proponent shall ensure that no silt originating due to mining activity is transported in the surface water course. Measures for prevention and control of soil erosion and management of silt shall be undertaken. Protection of dumps against erosion shall be carried out with geo-textile matting or other suitable material, and thick plantations of native trees and shrubs shall be carried out at the dump slopes. Dumps shall be protected by retaining walls.	The project has provided necessary precautionary measures like siltation pit towards protection of silt carry over into the nearby surface water bodies followed by retaining walls and garland drains at the toe of the dumps. Apart from that interference like guard wall all across the bank of the nallah, a length of 267 M and check weirs at the strategic locations are provided. The above measures have been taken up to reduce flow of sediments to the 1st order stream such as Mugamahadev nallah and 2nd order streams such as Baitarini River and also other water bodies present in the buffer area. It has been taken based on the rain fall data of past 50 years from the IMD station i.e. Keonjhar and all the sump capacity have been designed by giving 50 % safety margin. The photos regarding the same have been enclosed as photo – 6.
17	Trenches / garland drains shall be constructed at foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams shall be constructed across seasonal or perennial Nallahs (if any) flowing through the ML area be arrested. De-silting at regular intervals shall be carried out.	We ensure that there should not be any silt materials mixed in nearby nallah and all. To arrest silt from mines run off, a no. of catch drains and settling cum percolation pits have been constructed around the mines working areas. Nallah protection guard walls have also been constructed across the length of the nallah. Time to time de-silting is followed before each monsoon. The photo of the same is attached as photo 06 & 07.
18	Provisions shall be made for the housing the labours within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. the housing may be in the form of temporary structures to	There is no such construction activity inside the project area. They are being engaged from the adjoining villages. However, we have provided the site specific STP for treatment of domestic effluents and the treated water is being utilized for adjoining plantation & gardening purposes.

be remo the proje	ved after the completion of ect.	
measure identificat hazards, eradicat on expa shall be shall en doctor occupat monitoria respireat workers records a	ion, HIV, and health effects osure to mineral dust etc. carried out. The proponent gage a full time qualified who is trained in ional health. Periodicing for exposure to ble mineral dust on the shall be conducted and maintained including health of the workers. Awareness	Initial Medical Examination & Periodical Medical Examination of the workers engaged in the project is being undertaken periodically for permanent and outsider employees along with the pre-medical examination of persons employed, who are engaged in the process of mining & are likely exposed to dust to observe any contractions due to exposure to dust. This is being carried as per in compliance to Mines Act 1952 & rules 1956 and amendments there to. The various tests include PFT, X-Ray, and lung spirometry etc.
mining precautic personal carried compact	precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures	respiratory devices & time to time training on safety & health aspects is being provided. A full time qualified Occupational health doctor with provision of Occupational
or less) s by follo required	. Occupational Health nall be established near the	Health center has been provided near the mines area.
m width five tiers human school/d in the zone/ba areas, ar be raised and sele be as pe of the tre	pelt that is wind break of 15 and consisting of at least around the lease facing the habitation, agricultural fields etc. (if any vicinity) in the safety ckfilled and reclaimed round voids and roads shall d. Green belt development ection of plant species shall er CPCB guidelines. Density ees has to be around 2500 er hectare, herbs and shrubs	There is no such human habitation/schools etc. within the ML area. However, the project has covered all the sub-grade dumps with application of mixed grass seeds along the slopes to stabilize and also to reduce wash off in case of rains during monsoon. A safety zone of 7.5 m width around the ML boundary is being maintained. In this regard, the project has covered the dumps with application of mixed grass seeds along the slopes to stabilize and also to reduce wash off in case of rains during

	shall also form a part of afforestation program besides tree plantation. Help and guidance of local DFO may be sought in the matter. Details of year wise afforestation program including rehabilitation of mined out area shall be submitted to the SEIAA, Orissa within six months.	monsoon. The project has done 18, 000 numbers of saplings in and around the ML area till the reporting period 2016-17 in safety zone, & peripheral area of ML. Copy of the same is attached as photo no. 08
21	This environmental clearance is subjected to forest clearance under the Forest (Conservation) Act, 1980.	The lessee had applied for forest clearance over an area of 13.904 ha forest land including 1.214 Ha of safety zone for mining & its allied activities during 1st RML period under Forest Conservation Act 1980, for which it has got Stage-I Forest Clearance Vide letter No.10F (cons) 498/2011-17321/F & E on dated. 20.9.2014. Copy of the same is enclosed as Annexure -6.
22	The mining operation shall be restricted to above ground water table and it should not intersect the groundwater table.	As such mining activity does not intersect ground water table of the area. The Ultimate working depth is 530 AMSL which is far above the ground water level and ground water level exists 510 a MSL. Therefore, intersection of ground water table of the ML area will not occur.
23	The top soil shall temporarily be stored at earmarked site (s) only and it should not be kept unutilized for long (not more than 3 years). The topsoil shall be used for land reclamation and plantation.	There is no generation of the top soil during mining operations. In case of top soil generation generated in future, it will be stored in an earmarked area and necessary precaution will be taken to preserve its nutrient values so that it will be used for land reclamation and raising plantations.
24	The over burden (OB) generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. Proper terracing of OB dump shall be carried out so that	There is one sub-grade dump which has grade value more than 45 % of Fe i.e. marketable grade. The sub-grades are stacked in an identified area inside ML area by maintaining with proper slope. Dump is also developed with garland drain and retaining wall at the base. Plantation of native species of different varieties of

	the overall slope shall not exceed 28°. Back filling shall be done as per approved mining plan. Back filling to start from 3 rd year onwards of the mining operation and the entire quantity of waste shall be backfilled and liquidated within five years. There shall be no external OB dumps after the 6th year of the mining operations the backfilled area shall be afforested. Back-filling has to be done in a manner that it is restored to the normal ground level. Monitoring and management of rehabilated areas should continue till the vegetation is established and becomes self-generating compliance status to be reported to the appropriate authorities.	plants of 18, 000 species has been planted over waste dumps, safety zone & peripheral area of ML till 2016-17. Proper care and survival of vegetation is being carried. As per back filling, monitoring and management of rehabilitated area is concerned, we will abide by the conditions as per the approved Scheme of Mining (As approved by the Indian Bureau of Mines, Gol) and progressive mine closer plan. Monitoring and management of rehabilitated areas will be continued until vegetation becomes self-sustaining.
25	The funds earmarked for the environment protection measures shall be judiciously utilized. Under no circumstances this funds shall be diverted for other purposes. Year wise expenditure for these funds should be reported to the SEIAA, Orissa.	The funds earmarked for environmental protection are being utilized for the same.
26	The critical parameters such as SPM, RSPM, NO x in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closure shall be monitored periodically. Further, quality of discharged water shall also be monitored [TDS, DO, pH and total suspended solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate	and the data of the same is being

	of the company in public domain. The circular no. J 20012/1/2006-1A.II (M) dated 27.05.2009 issued by Ministry of Environment and forest, which is available on the website of the Ministry www.envfor.nic.in shall also be refereed in this regard for its compliance.	
27	A final mine closer plan along with details of Corpus Fund shall be submitted to the SEIAA 5 years in advance of final mine closure for approval.	The Project has submitted a Bank guarantee of Rs. 3,84,450 /- (Three lakhs eighty four thousand four hundred fifty rupees only) for rehabilitation as a part of the management of the mines closure of the Project. It has been approved by IBM in the scheme of mining on 07.04.2011. A final mine closer plan along with detailed corpus fund will be submitted to the ministry of Environment & Forest 5 years in advance of final mine closure for approval.
28	The project proponent shall obtained necessary prior permission of the competent authorities for drawl of requisite quantity of water (Surface water and ground water) required for the project.	The project proponent has already obtained NOC for withdrawal of ground water from Central Ground Water Authority.
29	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this environmental clearance and attract action under the provisions of Environmental Protection (EP) Act, 1986.	are submitting six monthly EC compliance

Annexure - 1

	Sub-Grade Dump Details					
SI. No.	Location	Area In Ha.	Material			
1	Dump-1 (Near South eastern side of the lease)	0.733	Sub grade ore			
2	Dump – 2 (Near pillar no.7)	0.037	Sub grade ore			
3	Dump – 3 (On pit benches)	0.235	Sub grade ore			

Retaining Wall Details				
SI. No.	Location	Length	Width	Height
1	Dump – 1 (Near out gate, Nalla side)	58	1.2	2
2	Dump – 3 (Near pillar no.14 to 16)	209	1.2	1.3

Annexure - 2

Socio-Economic Development Activities:-

Infrastructure

- Provided materials for Street Light Connections in nearby villages.
- Repairing and black topping of Village Road connecting Road from Deojhar to Murgabeda. Repairing of interior village roads

Education

- The school at village Murgabeda got improved by providing the teaching facility with the appointment of teachers. Renovation of school building & compound wall.
- Additional teachers have been posted in the adjoining villages.
- Distribution of Uniforms, Books, slates, pencil, etc to the school students.
- Mid day meal is being provided at free of cost for class 9th & 10th at Deojhar High School.
- Facilitating the Independence & Republic Day functions at adjoining schools by funding the entire celebration by extending various tournaments among school children.

Health

- Health-Check-up camp covering adjoining villages and free supply of medicines.
- Extending the Dispensary along with the ambulance facility to local villages with the availability Doctor& Staff and free medicine.

Drinking Water Facility & Sanitation

- 2 No's of deep bore wells got provided at village.
- Regular & periodical supply of drinking water to the adjoining villages with the water tankers.

Other peripheral activities

- Murga Mahadev Temple renovation work (Bathing area has been tiled & guard bars, Cloth changing room, Glazed tiled Bench, etc) already completed
- Regular maintenance of temple housekeeping, etc.
- Guard wall at the bank of Mahadev –nalla towards its protection.

Employment Opportunities

- Locals from adjoining villages are engaged in various activities of mines.
- Besides the above Temple maintenance staff comprises 3.No. of Lady Employees are from Local villages.
- Posting of additional teachers in schools from locality.
- Development of self-help groups for villagers is under planning.

• Year Wise Expenses

	CSR Expense Details						
SI. No	Description (in lakhs) (in lakhs) (in lakhs)		Expense (In Lakhs) 2017-18 (April to Sept. 2017)				
1	Infrastructure	1.33	0	0	0		
2	Education	2.92	1.9	3.21	1.84		
3	Health	4.10	3.2	4.61	3.66		
4	Drinking Water Facility	1.96	1.5	0.12	0		
5	Social welfare	2.00	1.2	0.98	1.64		
6	Employment	37.78	28.86	0	0		
7	Total	50.09	36.66	8.92	7.14		

 $\label{eq:Annexure-3} \mbox{ Details of the Six monthly EC Compliance submissions}$

EC Compliance submission Details				
SI. No.	Period	Date of Submission		
1	October, 2016 to March, 2017	26.05.2017		
1	April, 2016 to September, 2016	19.11.2016		
2	October, 2015 to March, 2016	25.05.2016		
3	April, 2015 to September, 2015	16.11.2015		
4	Oct 2014 to March, 2015	25.05.2015		
5	Apr, 2014 to Sep, 2014	22.11.2014		
6	October 2013 to March 2014	25.05.2014		
7	April 2013 to September 2013	25.11.2013		
8	October 2012 to March 2013	25.05.2013		
9	April 2012 to September 2012	25.11.2012		

		Annexure – 4
Deta	ils of Ambient Air	Quality Monitoring Stations
Identificat	ion/ Abbreviatior	n of air Quality Sampling Stations.
Station No.	Identification	Location
1	A1	Mines-site-office
2	A2	Village- Murgabeda
3	А3	Village - Boneikela
4	A4	Village - Bhadrasahi

Annexure -5 - Site Specific Wildlife conservation Plan approval letter

	OFFICE OF THE PRINCIPAL CCF (WILDLIFE) & CHIEF WILDLIFE WARDEN, ORISSA5 TH FLOOR, B.D.A. APARTMENT, PRAKRUTI BHAWA NILAKANTHA NAGAR, BHUBANESWAR-751012.	AN.
	Memo No. 1242 Dt. 15-2-10 1WL-C-FC-533/09	
Та	The Chief Conservator of Forests (Nodal), O/o the Principal CCF, Orissa, Bhubaneswar.	
Sub:	Approval of Site Specific Wildlife Conservation Plan for Murgabeda Iron C by Sri D.R. Patnaik in Keonjhar Forest Division of Keonjhar district	Ore Mines
Sir.		
distric	I am directed to inform you that the Site Specific Wildlife Conservation abeds Iron Ore Mines by Sri D.R. Pathaik in Keonjhar Forest Division of it has been approved by PCCF(WL) & Chief Wildlife Warden, Orissa with bial forecast of Rs.38.70 lakhs for the following activities.	Keonjhar
1.	For activities to be implemented by User agency in project area Rs.13.30 takhs.	
2	For activities to be implemented by DFO, Keonjhar division in	
	project impact area. Rs.25,40lakhs. Total Rs.38.70 lakhs	
	project impact area Rs.25,40lakhs.	with DFO
Keonj	Various activities in the lease hold area will be executed by User Agency ince of DFO, Keonjhar Division. Rs.25.40 lakhs may be deposited with a division for implementation of various activities with in the project impact of No. 1243 dt. 15.2.10 Copy forwarded to the DFO, Keonjhar Division for information & necess.	with DFO of area.
Keonj	Various activities in the lease hold area will be executed by User Agency ince of DFO, Keonjhar Division. Rs.25.40 lakhs may be deposited with a division for implementation of various activities with in the project impact on No. 1243 dt. 15.2.10	with DFO,
Memo with re	Various activities in the lease hold area will be executed by User Agency ince of DFO, Keonjhar Division. Rs.25.40 lakhs may be deposited with a division for implementation of various activities with in the project impact of No. 1243 dt. 15.2.10 Copy forwarded to the DFO, Keonjhar Division for information & necess.	with DFO of area.
Memo with re Memo refere	Various activities in the lease hold area will be executed by User Agency ince of DFO, Keonjhar Division. Rs.25.40 lakhs may be deposited with a division for implementation of various activities with in the project impact Conservator of Forests (WL) Copy forwarded to the DFO, Keonjhar Division for information & necess reference to Memo No. 3622 dt. 13.10.09 of CF, Keonjhar Cirle. Copy forwarded to CF, Rourkela Circle for information & necessary action	with DFO of area.

Annexure - 06 Forest clearance letter

Government of Odisha Forest & Environment Department

No.10F (Con) 498/2011 17321 /F&E, Bhubaneswar, dated the 20-9-14

Dr. Debabrata Swain, IFS Special Secretary to Government

The Principal Chief Conservator of Forests, Odisha

Sub: Proposal for diversion of 13.904 ha. of forest land including 1.214 ha. of forest land for safety zone in Murgabeda Iron Ore Mines in village Deojhar of Barbil Tahasil in Keonjhar district, Odisha for mining and allied activities during 1st RML period by Sri D.R. Patnaik

Sir.

To

I am directed to enclose herewith the Stage-I approval order of Government of India, MoEF&CC, Eastern Regional Office—vide letter—No. 5-ORC209/2014-BHU—dt. 5.9.2014 for diversion of 13.904 ha. of forest land including 1.214 ha. of forest land for safety zone in Murgabeda Iron Ore Mines in village Deojhar of Barbil Tahasil—in Keonjhar district, Odisha for mining and allied activities during 1st RML period—by Sri D.R. Patnaik. In the above said Stage-I approval order, there is no order for transferring the forest land in favour of—the user agency for which proposal was earlier recommended by the State Government to Government of India, MoEF, Eastern Regional office—vide letter No. 9074/F&E dt 16.5.2014. The Stage-I approval order referred to above indicates that Government of India, MoEF&CC, Eastern Regional Office, agrees for diversion—of above extent of forest land subject to compliance—of—27(Twenty seven) no. of conditions—by the user agency so as to consider the case for Stage-II(Final) forests clearance for this project.

Besides the conditions imposed by the Government of India, MoEF&CC, Eastern Regional Office, in their Stage-I order, the following additional conditions are also imposed by the State Government for compliance by the user agency.

- 1.818ha. of land including 1.214ha. of Forest Land earmarked as Safety zone shall be maintained as such. Under no circumstances, the safety zone area area shall be used for mining and other allied activities.
- Durable 4' height RCC pillars and 2' embedded in the soil are to be constructed on the boundary line of the mining lease area and on the boundary line of forest area within the lease at the cost of User Agency. The forward bearing, backward bearing, pillar No. are to be mentioned on the pillars clearly. The DGPS reading for each and every pillar shall be submitted to . Divisional Forest Officer, Keonjhar for reference and record.
- The User Agency shall implement at their project cost the Site Specific Wildlife Plan
 in their leasehold area already by the Chief Wildlife Warden, Odisha at project cost.
- The User Agency shall pay towards cost of removal of trees enumerated before commencement of work on Stage-II approval and tree felling should be allowed in phases strictly as per requirement
- The user agency shall pay the differential contribution towards implementation of the Regional wildlife management plan for Keonjhar-Bonai region as per the revised rate..
- The user agency shall obtain Post-facto permission of Government of India, MoEF for transfer of lease from Sri Niranjan Patnaik to Sri D.R. Patnaik
- User agency shall furnish the exact land schedule of forest land proposed for diversion duly authenticated by the DFO, Keonjhar and Tehsildar concerned.

A

MM 39/14 +-29-9-2014 ailtoKKH, DRO

Photos





Pic 1- Retaining Wall constructed at the base Of sub-grade dump

Pic 2- dump stabilization with plantation





Pic 3- Provision of guard wall all along the Nallahs

Pic 4- Roof Top Rain water Harvesting Structure





Pic 5- Black Top Road for mineral dispatch Pic 6- settling pond and check dam.



Pic 7- Check weirs near bank of Nallah



Pic 8- Safety Zone Plantation