



सत्यमेव जयते

Government of India / भारत सरकार
Ministry of Environment, Forest & Climate Change
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Regional office (Eastern Central Zone)/ (पूर्वी मध्य क्षेत्रीय कार्यालय)
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जहाँ है हरियाली ।
वहाँ है खुशहाली ॥

No. 103-97/05/EPE/ 2800

Dated: 20.12.2018

To,

The Director,
Monitoring Cell,
Ministry of Environment, Forest and Climate Change
Indira Paryavaran Bhavan, Jorbagh Road, Aliganj,
New Delhi – 110 003.

Sub:- Monitoring report of North Urimari Opencast Coal Mining Project of M/s Central Coalfields Ltd. located in part of Village Urimari, Tehsil Urimari, District Hazaribagh in Jharkhand –regarding.

Ref: Ministry's Clearance letter no. J-11015/307/2005-1A.II (M) dated 08.02.2006

Sir,

I am directed to inform you that North Urimari Opencast Coal Mining Project of M/s Central Coalfields Ltd. located in part of Village Urimari, Tehsil Urimari, District Hazaribagh in Jharkhand was monitored by Regional Office Ranchi on 17.08.2018 and the monitoring report is sent to you as annexure with this letter. Project Proponent M/s Central Coalfields Ltd. has requested for certified compliance for the North Urimari Opencast Coal Mining Project. It was observed that the following conditions need special attention:

Specific Conditions:

Following condition was not complied:

(Condition no. xx): Latest report of monitoring of land use pattern using remote sensing technology has not been submitted to Regional Office Ranchi.

Following conditions were partially complied:

(Condition no. iii): No catch drain siltation ponds were made around the soil dump. No other top soil dump was observed in the project area except a small top soil dump (near South of Eastern quarry).

(Condition no. iv): O/B dumping has been done on east and west of Potanga nallah. However in the EIA/EMP report it is mentioned that O/B (from western quarry) shall be dumped at the west of Potanga nallah. Project authorities should dump O/B at the earmarked dump site(s) as per EC Condition.

Grassing and vegetation was not observed in some of the O/B dumps. Project authorities should urgently start the grassing and vegetation work on the slope of the O/B dumps to minimize/control erosion of silt. The slope of O/B dumps appeared to be more

than 28° at some place as can be seen from photos. It is requested to submit cross-section of the O/B dumps mentioning slope and height of the dumps.

(Condition no. v): During site inspection it was observed that “there was no catch drain, toe wall in between the O/B dump and the Potanga nala. It was suggested to project authorities to urgently construct catch drain and toe walls to safeguard the Potanga nala from silt of the O/B dump. No catch drain, siltation ponds were provided besides the coal dump. It was suggested to provide fixed water sprinkling system, water points, catch drain at the coal dump area. At many places besides the dump Catch drains, siltation ponds still needs to be constructed.

(Condition no. vi): Retaining wall at the toe of dumps is not made at various places at the toe of the dumps and it should be urgently made.

(Condition no. vii): Project proponent (P.P.) has not submitted plantation details after 2011-2012. Greenbelt development should be increased in the project area.

(Condition no. ix): Project authorities showed some embankment besides the mine (Western quarry). However these embankments were not constructed on Potanga & Tilaiya nallahs. The embankment showed by project authorities was to protect the western quarry from the seasonal nallahs/water from O/B dumps, etc.

(Condition no. x): Project authorities also reported that “there is proposal of rooftop rain water harvesting over Project Officer’s Office.” Project authorities have submitted letter no. PO/BP/Env./2018/1166 dated 16.08.2018 in which they have requested Regional Director, Central Ground Water Board, Mid Eastern Region, Patna to find potential and installation of suitable water conservation measure to augment ground resources and rainwater harvesting structure at North Urinary OCP.

(Condition no. xi): No piezometer was found in the project during project inspection. Lead (as Pb) and Nitrate (NO₃) are higher than prescribed limit in quarter endings March 18. PP has not submitted details of establishing a network of existing wells and constructing new piezometers in the project area. Ground water level data has not been submitted to Regional Office Ranchi.

(Condition no. xiii): Any ground water modeling studies report has not been submitted to Regional Office Ranchi. Project authorities should also send ground water modeling studies data and findings to Central Ground Water Authority, Regional Director, Central Ground Water Board.

(Condition no. xiv): Project authorities have mentioned in their six monthly compliance report that “Rooftop RWH on Project Officer’s Office – estimate of 8L prepared.” Some rainwater harvesting structures/pits may also be constructed in the project area in consultation with Regional Director, CGWB.

(Condition no. xv): Project proponent has not submitted water quality data of Damodar River upstream and downstream. They have submitted surface water quality data of upstream and downstream of Jarjara nallah. Project proponent has not submitted any communication/consultation with JSPCB for appropriate mitigative measures to prevent pollution of Damodar River. One of the major source of water pollution from project is of silt from O/B dump and coal dust from coal dump being carried out in nallahs and subsequently into river during rainy season. Catch drains, siltation ponds and retaining walls must be made to control the silt and coal fines from dumps. Grassing/vegetation must also be done on O/B dumps to minimize erosion.

(Condition no. xvi): Railway siding was visited. In the hopper and crusher units some water sprinklings were provided. However these water sprinkling arrangements can be improved. Finer holes for water sprinkling, dry fogging arrangements, etc. can be provided for maximum dust suppression. There was coal dust layers on the road of the railway siding. There was no fixed water sprinklers arrangements there nor any facility of portable water tankers for dust suppression in the area. It was also suggested to develop green belt (three tier

plantation) in the railway siding area (less plantation/green belt was observed in the railway siding area.

(Condition no. xvii): Sewage treatment plant and ETP was not provided in the project. Soak pit and Septic tank are used for colony area and office area. An oil and grease trap was observed in workshop area but it needs to be maintained and made completely functional.

(Condition no. xix): Copy of pre-project community health status report must be submitted to Regional Office Ranchi.

(Condition no. xxiv): Project authorities have submitted a letter no. PO/BP/Env./2018/1180 dated 17.08.2018 in which they have requested District Forest Officer, Hazaribagh to conduct survey and study for finding precautionary measures to be taken during mining operations for conservation and protection of endangered fauna.

Following conditions were reportedly complied but further action needed:

(Condition no. ii): It is requested to submit copy of Forest Clearances obtained for the project. It is also requested to furnish latest status of application for diversion of remaining forest land.

(Condition no. xii): A copy of the permission letter from DVC and JSPCB for drawl of water from river must be submitted to Regional Office Ranchi.

(Condition no. xxi): Copies of PUC (Pollution Under Control) Certificate for few vehicles must be submitted to Regional Office Ranchi.

(Condition no. xxii): It is suggested to expedite the rehabilitation of remaining project affected families.

(Condition no. xxiii): It was observed that village dwellings were not very far from the mines edge. It was suggested to take all necessary precautions during blasting so that adverse effects of blasting viz. flyrocks, ground vibration do not occur. It is also requested to provide blasting design and pattern, stemming, explosives used per hole, total explosives blasted per delay, types of detonators used, burden, spacing, etc.

(Condition no. xxv): A copy of Progressive Mine Closure Plan may be submitted to Regional Office, Ranchi.

General Conditions

Following conditions were partially complied:

(Condition no. iv): The level of Total* particulate matter (*PM₁₀+ >PM₁₀) ranges from 116 to 650 µg/m³, particulate matter (PM₁₀) ranges from 65 to 382 µg/m³, particulate matter (PM_{2.5}) ranges from 21 to 148 µg/m³. Monitoring data of CO has not been submitted. NAAQS- 2009 has not been followed. Some spontaneous heating was observed in the project area. It was suggested to take all necessary steps (putting O/B material, water spraying, other latest methods etc.) to stop spontaneous combustion in the project.

(Condition no. v): Project proponent has not submitted fugitive dust emission monitoring data. Project proponent has submitted some details of water tankers which is not satisfactory. Project proponent should maintain log book of water tankers showing details of daily running hours, fuel consumption, and maintenance data of water tanker for sprinkling water in mines. Copy of log book of all water tanker (departmental and outsourcing) must be sent to Regional Office Ranchi. Some fixed water sprinklers should also be installed in the dusty areas.

(Condition no. x): Oil and grease trap was provided in the workshop area. However the oil and grease trap has to be maintained properly. A pumping arrangement has to be done to take back the clean water after oil and grease has been removed and use the clean water for water

spraying, etc. A register should also be maintained showing quantity of oil and grease removed per month from oil and grease trap. Oil and grease trap should also be provided for machines of outsourcing company.

Following condition was being complied but further action needed:

(Condition no. vii): Number of ear plugs/muffs issued to workers for last 3 years must be submitted to Regional Office Ranchi.

Following conditions were reportedly complied but further action needed:

(Condition no. iii): Documents showing consultation with Forest department must be submitted.

(Condition no. xi): Number of dust masks issued to workers for last 3 years must be provided to Regional Office Ranchi.

(Condition no. xii): Environmental personnel must go through conditions of EC regularly and inform the Project Officer and different Section/Department Heads about the conditions that has to be complied. Many of the conditions of EC are partially complied or not complied.

(Condition no. xiii): Project authorities did not mention that funds earmarked for environmental protection measures has been kept in separate account or not. Year wise expenditure on environment protection measures has also not been submitted.

(Condition no. xv): A copy of receipt of EC from concerned Panchayat / local NGO must be submitted to Regional Office, Ranchi.

(Condition no. xvii): Copy of newspaper advertisement must be submitted to Regional Office Ranchi.

This issues with the approval of the Additional PCCF (Central).

Yours faithfully,



(Rajeev Ranjan)
Scientist 'D'

Enclosure: As stated.


Copy to:

1. Scientist 'E', (Kind attention: Shri SK Srivastava), IA(Coal Mining), Vayu Wing, 3rd floor, IA division, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003 (for kind information and necessary action please).
2. The Member Secretary, JSPCB, T.A Divison Building, HEC Dhurwa, Ranchi. 834004.
3. Deputy General Manager & HOD (Environment), M/s Central Coalfields Ltd., Darbhanga House, Ranchi. Jharkhand. Ranchi- 834001.
- ✓ 4. Project Officer, Project Officer Office ,Birsa OCP/North Urimari OCP, Village- Urimari, Block- Barkagaon, Distt- Hazaribagh, Jharkhand- 825311 (Action taken report/reply to the non complied/partially complied conditions, other observations must be sent to Regional office, Ranchi within 15 days of receipt of this letter).

Yours faithfully,



(Rajeev Ranjan)
Scientist 'D'

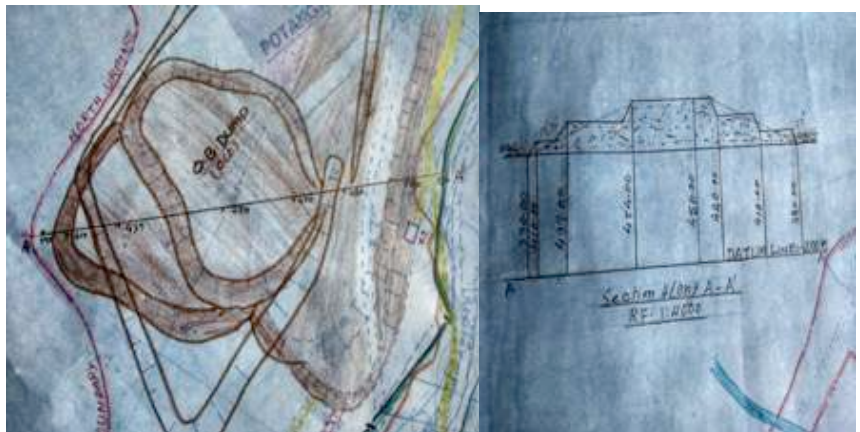
S.L No.	Specific Conditions	Compliance/ Action Taken Report
Following condition was <u>not</u> complied		
1.	Conditions No. XX: Latest report of monitoring of land use pattern using remote sensing technology has not been submitted to Regional Office Ranchi.	Latest soft copy of report (For the year 2017 and 2014) of monitoring of land use pattern using remote sensing technology has been submitted to Regional Office Ranchi through email dated 06.02.2019 to ro.ranchi-mef@gov.in . Attached as Annexure I .
Following condition were <u>partially</u> complied		
2.	Conditions No. iii: No catch drain siltation ponds were made around the soil dump. No other top soil dump was observed in the project area except a small top soil dump (near South of Eastern quarry).	<p>Top soil dump is also done at north side of Western Quarry.</p> <p>Photos below:</p>  <p>The area has hilly terrain and so have little top soil. Previous top soils generated were also used for 3.9 Ha plantations on OB Dump done in 2011.</p> <p>Catch drain and siltation pond will be constructed soon as action is being taken in this regard for OB Dumps and CoalStock yard aswell. Undertaking,location and proposal for same is attached as Annexure II.</p>
3.	Conditions No. iv: O/B dumping has been done on east and west of Potanga nallah. However in the EIA/EMP report is mentioned that O/B (from western quarry) shall be dumped at the west of Potanga nallah. Project authorities should dump O/B at the earmarked dump site(s) as per EC Conditions. Grassing and vegetation was not observed in some of the O/B dumps. Project authorities should urgently start the grassing and vegetation work on the slope of O/B dumps appeared to be more than 28° at some place as can be	<p>OB is being dumped on both the west and east side of Potanga Nala. CMPDIL, Ranchi has earmarked the site as Potanga Nala is scheduled to be diverted as per Project Report of North Urimari OCP.</p> <p>Grassing has been done on OB dump of East Quarry and action is being taken to grass OB Dump of West Quarry as well. Photos are below:</p>

seen from photos. It is required to submit Cross-section of the O/B dumps mentioning slope and height of the dumps.

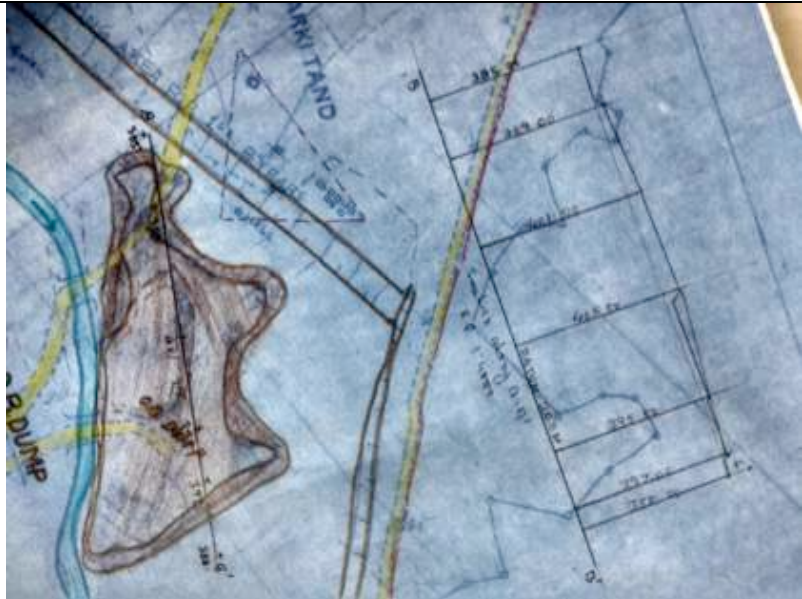


Overall slope of OB dump is less than 28 degrees as shown on the plan attached as Annexure III. Plan shows cross-section of the O/B dumps mentioning slope and height of the dumps.

Cross Section AA'



Cross Section BB'



Cross Section CC'





4. **Conditions No. v:** During site inspection it was observed that no catch drain, toe wall in between the O/B dumps and the Potanga nala. It was suggest to project authorities to urgently construct catch drain and toe walls to safeguard the Potanga nala from site of the O/B dump. No catch drain, siltation ponds were provided besides the coal dump. It was suggest providing fixed water sprinkling system, water points, and catch drain at the coal dump area. At many place besides the dump catch drains, siltation ponds still needs to be constructed.

Action is being taken to urgently construct catch drain and toe walls to safeguard the Potanga nala from site of the O/B dump.Undertaking, Location and Proposal for construction of toe wall of 400 m against two OB Dumps within 5 months is attached as **Annexure IV.**

Catch drain and siltation pond will be constructed soon as action is being taken in this regard for OB Dumps and CoalStock yard aswell. Undertaking,location and proposal for same is attached as **Annexure II.**

Action is being taken to provide fixed water sprinkling system, water points, catch drain and siltation pond at the coal dump area. Undertaking for fixed water sprinkler at coal stockyard within 6 months is attached as **Annexure V.**

Currently water sprinkling is done for control of ambient dust generated due to mining operation by mobile sprinkler. There are one 28 KL and two 20 KL water tanker that continuously wet the haul road, transport road, coal dump area, etc. Log book of water tanker is attached as **Annexure VI.**

		
5.	<p>Conditions No. vi: Retaining wall at the toe of dumps is not made at various places at the toe of the dumps and it should be urgently made.</p>	<p>Toe wall and catch drain is constructed on the reclaimed part of dump of eastern quarry. Photos below:</p>  <p>Action is being taken to urgently construct catch drain and toe walls along other O/B dumps. Undertaking, Location and Proposal for construction of toe wall of 400 m against two OB Dumps within 5 months is attached as Annexure IV.</p> <p>Catch drain and siltation pond will be constructed soon as action is being taken in this regard for OB Dumps and Coal Stock yard as well. Undertaking, location and proposal for same is attached as Annexure II.</p>
6.	<p>Conditions No. vii: Project proponent (P.P) has not submitted plantation details after 2011-2012. Greenbelt development should be increased in the project area.</p>	<p>Since there were no plantations done since 2011-12, we could not submit plantation details since. Year wise area to be planted in span of 29 year will total to 321.21 Ha.</p>
7.	<p>Conditions No. ix: Project authorities showed some embankment besides the mine (Western quarry). However these</p>	<p>Embankment length against Seasonal Tributary of Tilaiya nala in the north side of Outsourcing patch (west quarry)- 250 m</p>

embankments were not constructed on Potanga & Tilaiya nallahs. The embankment showed by project authorities was to protect the western quarry from the seasonal nallahs /water from O/B dumps Etc.





Embankment length against Potanga nala-215 m(outsourcing west quarry) and 100 m(departmental east quarry).

Along Outsourcing Quarry:



Along departmental quarry:

		 
8.	<p>Conditions No. x: Project authorities also report that “there is proposal of rooftop rain water harvesting over Project Officer’s office. “Project authorities have submitted letter no. PO/BP/Env./2018/1166 dated 16.08.2018 in which they have requested Regional Director, Central Ground Water Board, Mid-Eastern Region, Patna to find potential and installation of suitable water conservation measure to augment ground resources and rainwater harvesting structure at North</p>	<ul style="list-style-type: none"> • Construction of Check Dam along Potanga Nala is under process. Photos below:

Urimari OCP.



Undertaking for completion within **2 months**, work order and location map is attached as **Annexure VII**.

- 2 check Dams are already constructed. One at Jarjara nala and another at east side of North Urimari Project.
- The proposal for Rooftop Rainwater harvesting on project office building is in process. It will be installed in the next financial year. The estimate for Rs 7,52,757.99 is prepared and the work will be completed by the next financial year. Roof area of project office is 42 m x 10.30 m. top rain water of roof area comes through small sizes of 11 nos of PVC pipes of 110 mm size laying. All the rain water comes into bigger size PVC pipe of 200mm dia. Then after it comes into sedimentation tank having gravels. Rain water then passes into recharge pit having borehole.

Proposal and drawing is attached as Annexure VIII

		<ul style="list-style-type: none"> • 3 sumps at west quarry of having capacity 10,500 m³, 400000 m³ and 135000 m³ respectively, and 2 sumps at east quarry having capacity 54,000 m³ and 3,62,000 m³ respectively are ground water recharge structure. • Letter no. PO/BP/Env./2018/1166 dated 16.08.2018 requesting Regional Director, Central Ground Water Board, Mid-Eastern Region, Patna to find potential and installation of suitable water conservation measure to augment ground resources and rainwater harvesting structure at North Urimari OCP. Copy attached herewith as Annexure IX)
9.	<p>Conditions No. xi: No piezometre was found in the project during project inspection. Lead (as Pb) and Nitrate (NO₃) are higher than prescribed limit in quarter ending march 18. PP has not submitted details of establishing a network of existing wells and constructing new pyrometers in the project area. Ground water level data has not been submitted to Regional Office Ranchi.</p>	<ul style="list-style-type: none"> • Piezometre location study was done last year. Location and design were identified by CMPDIL in their report for North Urimari OCP. Action is being taken to install piezometre at such location to monitor ground water level and quality. To monitor the impact of mining on local ground water regime, three location has been identified for construction of four nos. piezometers (Pz-1 to Pz-4) tapping Shallow, Deeper and confined aquifers around the mine periphery of North Urimari OCP, Barka-Sayal Area, SKCF. Piezometer number Pz-1 and 2 is tapping combined aquifer (respective Depth up to 98.0 m 139.0 m), Piezometer Pz-3 is tapping shallow aquifer (Depth up to 27.0 m) and Piezometer Pz-4 is tapping deeper aquifer (Depth up to 90.0 m). The proposed locations of piezometers are based on following factors: <ol style="list-style-type: none"> 1) Same aquifer should be tapped in the Piezometer which is contributing mine inflow and aquifers were identified on the basis of litho logs of Exploratory Boreholes. 2) Location should be adjacent to the mine and also near to local village to observe the actual impact of mining on Groundwater. • Ground water report is being submitted with help of network of dug well in and around the project area. Copy attached herewith as Annexure X. • Pb and NO₃ level data again came to prescribed limit as evident from latest report of Dec 2018. Copy attached herewith as Annexure XI.
10.	<p>Conditions No. xiii: Any ground water modelling studies report has not been submitted to Regional Office Ranchi. Project authorities should also send ground water modelling studies data and finding to Central Ground Water Authorities, Regional Director, and Central Ground Water Board.</p>	<p>Ground water report is being submitted with help of network of dug well in and around the project area. COPY attached herewith as Annexure X.</p> <p>Application for NOCAP for North Urimari OCP submitted to CGWA. Receiving from R.O Patna, CGWA is attached as Annexure XII.</p>
11.	<p>Conditions No. xiv: Project authorities have mentioned in their six monthly compliance report that “Rooftop RWH on Project Officer’s Office –estimate of 8L prepared, “some rainwater harvesting structures/pits may also be constructed in the project area in consultation with Regional</p>	<p>The proposal for Rooftop Rainwater harvesting on project office building is in process. It will be installed in the next financial year. The estimate for Rs 7,52,757.99 is prepared and the work will be completed by the next financial year. Roof area of project office is 42 m x 10.30 m. top rain water of roof area comes through small sizes of 11 nos of PVC pipes of 110 mm size laying. All the rain water comes into bigger size PVC pipe of 200mm dia. Then after it comes into sedimentation tank having gravels. Rain water then passes into recharge pit having borehole. Proposal and drawing is attached as Annexure VIII.</p>

	Director, CGWB.	Letter no. PO/BP/Env./2018/1166 dated 16.08.2018 requesting Regional Director, Central Ground Water Board, Mid-Eastern Region, Patna to find potential and installation of suitable water conservation measure to augment ground resources and rainwater harvesting structure at North Urimari OCP. Copy attached herewith as Annexure IX .
12.	<p>Conditions No. xv: Project proponent has not submitted water quality data of Damodar River upstream and downstream. They have submitted surface water quality data of upstream and downstream of jarjaranallah. Project proponent has not submitted any communication/consultation with JSPCB for appropriate mitigative measures to prevent pollution of Damodar River. One of the major source of water pollution from project is of silt from O/B dump and coal dust from dump being carried out in nallah and subsequently into river during rainy season. Catch drains, siltation ponds and retaining walls must be made to control the silt and coal fines from dumps, Grassing/vegetation must also be done on O/B dumps to minimize erosion.</p>	<p>From the next cycle of monitoring of Damodar River's Upstream and Downstream will also be submitted . Request to add sampling point for Damodar River has been submitted to CMPDIL Ranchi.</p> <p>Copy of request is attached as XIII.</p> <p>Catch drain and siltation pond and retaining wall has been made to control the silt from OB Dump in east quarry. Action has been taken for grassing / vegetation on OB Dump in west quarry. However grassing/vegetation has already been done on OB dump in East quarry.</p>
13.	<p>Condition No. xvi: Railway siding was visited. In the hopper and crusher units some water sprinkling were provided. However these water sprinkling, dry fogging arrangements etc. can be provided for maximum dust suppression. There was coal dust layers on the road of the railway siding. There was no fixed water sprinklers arrangements there nor any facility of portable water tankers for dust suppression in the area. It was also suggested to develop green belt (three tier plantation) in the railway siding area (less plantation/green belt was observed in the railway siding area.</p>	<p>Coal from the North Urimari OCP is transported to Saunda B Railway Siding for further transportation. Saunda B siding, which is at the distance of about 8 km from North Urimari OCP, will be used for transporting coal until construction of North Urimari Railway Siding is complete. Saunda B siding have valid C.T.O from JSPCB Ranchi, granted on 18.2.2019.(Copy Attached as Annexure XIV).</p> <p>Plantation is done all around the railway siding. PHOTOS below:</p>



Mobile water tanker is used for water sprinkling in and around the siding.
PHOTOS shown below



Coal crushing unit has fixed kind of sprinkler at feeder and conveyor belt.
Photos shown below:



Fixed sprinkler is to be installed by May of 2019 along the platform and crushing units of Railway Siding at the cost of 49.83 lakh. There will be 10 fixed sprinklers in the crushing units. The fixed 3 blade sprinklers (at spacing of 3.5 to 5 m) along the platform of around 800 m will be rotating one. The water for sprinkling system will be sourced from abandoned quarry present beside it. There will be 7 valves placed strategically along

		the fixed water sprinkling system and valve for every sprinklers tapping to control sprinkling. Proposal is attached as Annexure XIV A.
14.	Conditions No. xvii: Sewage treatment plant and ETP was not provided in the project. Soak pit and septic tank are used for colony area. An oil and grease trap was observed in workshop area but it needs to be maintained and made completely functional.	Since colony is old therefore soak pit and septic tank are used for colony area. Oil and grease trap is functional and action is being taken to make the workshop a zero discharge one within 3 months. Undertaking is attached as Annexure XV.
15.	Conditions No. xix: Copy of pre-project community health status report must be submitted to Regional Office Ranchi.	84 to 88 page of EIA/EMP report of North Urimari OCP contains the pre project community health status. 84 to 88 page of EIA/EMP report of North Urimari OCP is attached as Annexure XVI. Health Camp is conducted regularly at North Urimari Project. Total beneficiaries for the last 2 year are as follows. Year 2016-17. Total Village Health Camps conducted were 19, Total beneficiaries were 787 Total School Health camps conducted were 05, Total beneficiaries were 308 Year 2017-18 Total Village Health Camp conducted 03, Total beneficiaries were 114 Total School Health Camp were 02, Total beneficiaries were 48 Up till August 2018 for current financial area-periodical Medical Examination (PME) up till now done for 45 against target of 120. Initial Medical Examination (IME) of 77 is also done this year up till now. 2017-132 workers underwent PME against 130. 57 workers underwent IME. No Case of occupational health hazard is detected since 2011 , even though regular PME and IME are done for worker.
16.	Conditions No. xxiv: Project authorities have submitted a letter no. PO/BP/Env./2018/1180 dated 17.08.2018 dated 17.08.2018 in which they have requested District Forest Officer, Hazaribagh to conduct survey and study for finding precautionary measure to be taken during mining operations for conservation and protection of endangered fauna.	Letter no. PO/BP/Env./2018/1180 dated 17.08.2018 dated 17.08.2018 requesting District Forest Officer, Hazaribagh to conduct survey and study for finding precautionary measure to be taken during mining operations for conservation and protection of endangered fauna. COPY is attached as Annexure XVII.
Following conditions were reportedly complied but further action needed.		
17.	Conditions No. ii: it is requested	The forestland diverted for the project is 226.51 Ha vide F.No. 8-54/2008-

	to submit copy of Forest Clearance obtained for the project. It also requested to furnish latest status of application for diversion of remaining forest land.	FC, dated 03.08.2011 which includes Notified Forest and GM Jungle Jhari both. It includes Notified Forest of 52.09 Ha and GM JJ of 174.42 Ha. Copy of FC for 226.51 Ha is attached as ANNEXURE XVIII It is further affirmed that Coal mining and allied activities are confined to diverted forestland only that includes both Notified Forest and GM JJ. Rest of the forest land of 14.15 ha (which is of Notified Forest nature) will be diverted when required. Until then all the mining activity will be only carried on diverted forest land and no activity will be carried on un-diverted forest land.
18.	Conditions No. xii: A copy of the permission letter from DVC and JSPCB for drawl of water from river must be submitted to Regional Office Ranchi.	Water is not withdrawn from rivers for North Urimari OCP.
19.	Conditions No. xxii: It is suggested to expedite the rehabilitation of remaining project affected families.	As the project will progress remaining PAFs will be rehabilitated. Total PAFs are 545. Out of which 59 PAFs were rehabilitated outside R&R site of Pargarha-Barkitand. 32 PAFs are rehabilitated at R&R site of Pargarha-Barkitand. PAFs yet to be rehabilitated are 454. R&R detaails showing photos, expenditure and R&R performa is attched as Annexure XIX .
20.	Condition no xxi: Copies of PUC certificate for few vehicles must be submitted to Regional office Ranchi.	Copy of some PUC is attched as Annexure XX .
21.	Conditions No. xxiii: It was observed that village dwelling were not very far from the mines edge. It was suggested to take all necessary precautions during blasting so that adverse effects of blasting viz. fly rocks, ground vibration do not occur. It is also requested to provide blasting design and pattern, stemming, explosive used per hole, total explosive blasted per delay, types of detonators used, burden, spacing etc.	All necessary precautions are taken during blasting like proper pattern , sequencing, stemming, explosive used per hole, total explosive blasted per delay, types of detonators used, burden, spacing etc. Regular monitoring is done for measuring vibrations (PPV) so that dwellings don't get affected. Blasting permission copy and Vibration report is attached as Annexure XXI .
22.	Conditions No. xxv: A copy of progressive Mine Closure plan may be submitted to Regional Office, Ranchi.	COPY of Progressive Mine Closure Programme is attached as Annexure XXII .

S.L No.	General Conditions	Compliance
	Following conditions were partially complied.	
1.	Conditions No. iv: The level of Total* particulate matter (PM ₁₀ +>PM ₁₀)	Spontaneous combustion mitigation measures: <ul style="list-style-type: none"> At outsourcing patch, near Sarna Sthal at North side of quarry,

ranges from 116 to 650µg/m³, particular matter (PM₁₀) ranges from 65 to 382 µg/m³, particulate matter (PM_{2.5}) ranges from 21 to 148 µg/m³. Monitoring data of **CO** has not been submitted. NAAQS-2009 has not been followed. Some spontaneous heating was observed in the project area. It was suggested to take all necessary steps (putting O/B material, water spraying, other latest methods etc.) to stop spontaneous combustion in the project.

blanketing by sand and debri is done over fire area. After this Fire Tender from C.R.S Barkakana since 11.02.2019, every day 4 trips of 20kl each is spread over fire.

Photos




CO data is attached as **Annexure XXIII**

2. Conditions No. v: Project proponent not submitted fugitive dust emission monitoring data. Project proponent has submitted some details of water tankers showing details of daily running hours, fuel consumption, and maintenance data of water tanker for sprinkling water in mines. Copy of **log book** of all water tanker (departmental and outsourcing) must be sent to Regional Office Ranchi. Some fixed water sprinklers should also be installed in the dusty areas.

Total 6 nos of water tankers have been deployed to water sprnkling for dust supression on haul road, faces and dumping area. Copy of log book of all water tanker (departmental and outsourcing) is attached as **Annexure VI**.

Fugitive emission is reduced considerably as coal extraction is done by Surface Miner. Surface miner substitutes drilling,blasting and crushing and thus act as a eco-friendly way of coal extraction.Photos below:

		 <p data-bbox="659 790 1433 857">Air monitoring data for different location of North Urimari OCP for quarter ending Dec 18 is attached as Annexure XXIV.</p>
<p data-bbox="156 898 177 925">3.</p>	<p data-bbox="193 898 636 1402">Conditions No. x: Oil and grease trap was provided in the workshop area. However the oil and grease trap to be maintained properly. Apumping arrangement has to be done to take back the clean water after oil and grease has been removed and use the clean water for water spraying etc. A register should also be maintained showing quantity of oil and grease removed per month from oil and grease trap. Oil and grease trap. Oil and grease trap should also be provided for machines of outsourcing company.</p>	<p data-bbox="659 898 1442 1128">Oil and grease trap is provided in the workshop area and is functional. Action is being taken for further maintenance. Undertaking to make it functional within 3 months is attached as Annexure XXV. Action is also being taken to make the workshop zero discharge by using the treated water from Oil & Grease trap for washing purpose.</p>
<p data-bbox="108 1408 636 1469">Following conditions was being complied but further action needed.</p>		
<p data-bbox="156 1476 177 1503">4.</p>	<p data-bbox="193 1476 636 1608">Conditions No. vii: Number of ear plugs/muffs issued to workers of last 3 years must be submitted to Regional Office Ranchi.</p>	<p data-bbox="659 1476 927 1541">2017-18 = 5 ear plugs. 2016-17 = 25 ear plugs.</p>
<p data-bbox="108 1615 636 1675">Following conditions were reportedly complied but further action needed.</p>		
<p data-bbox="156 1682 177 1709">5.</p>	<p data-bbox="193 1682 636 1778">Conditions No. iii: Documents showing consultation with forest department must be submitted.</p>	<p data-bbox="659 1682 1442 1912">Letter no PO/BP/ENV/2018/1180 dated 17.8.2019 was communicated to D.F.O Hazaribagh for conducting survey and study for all precautionary measures to be taken during mining operation for conservation and protection of endangered fauna such as Monkeys (<i>Presbytis entellus</i>), python, baaz, eagle, peacock reported in the study area and Action plan for conservation of endangered fauna. COPY attached as Annexure XVII.</p>
<p data-bbox="156 1957 177 1984">6.</p>	<p data-bbox="193 1957 636 2049">Conditions No. xi: Number of dust masks issued to workers for last 3 years provided to Regional Office</p>	<p data-bbox="659 1957 963 2022">2017-18 = 132 dust masks. 2016-17 = 80 dust masks.</p>

	Ranchi.	
7.	Conditions No Xii: Environmental personnel must go through conditions of EC regularly and inform the Project Officer and different Section/Department Heads about the conditions that has to be complied. Many of the conditions of EC are partially complied or not complied.	Action has been taken for full compliance to conditions of EC.
8.	Conditions No. xiii: project authorities did not mention that funds earmarked for environment protection measure has been kept in separate account or not. Year wise expenditure on environment protection measure has been has also not been submitted.	<p>Rs 10, 00, 000 rupees is allocated for Environment under Revenue Budget of Barka-Sayal Area in 2018-19</p> <p>For protection of environment, expenditure incurred in dust suppression in mines premises, workshop, haul roads, etc. cleaning of oil & grease trap tank, cleaning washing platform, cleaning of garland drains, etc. in last 4 year is approx. 30.69 lakh</p> <p>Expenditure incurred if infrastructural development such as school building community centre, marketing centre, dispensary, road, etc. at R&R site Pargarha Barkitand of North Urimari Project is approximately 527 lakh in last 3 year.</p> <p>Other cost incurred are i) Monitoring of Ambient Air, Noise, Surface Water, Ground Water and Effluent water ii) Cost under Mine Closure Plan etc.</p>
9.	Conditions No. xv: A copy of receipt of EC from concerned Panchayat / local NGO must be submitted to Regional Office, Ranchi.	Copy of EC submitted to Panchhayat and receipt attached as Annexure XXVI.
10	Conditions No. xvii: Copy of newspaper advertisement must be submitted to Regional Office, Ranchi.	COPY Attached As Annexure XXVII.