



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Date: 01/06/2024

Ref. No. 1040/PBCMP/EMG/2024/F-47/108

To,

The Deputy Director General of Forests (C),
MoEF&CC, Integrated Regional Office,
2nd Floor, Headquarter Jharkhand State Housing Board
Harmu Chowk, Ranchi (Jharkhand) – 834002.

Dear Sir,

Sub: Six monthly Progress Report on compliance of conditions stipulated in the Environmental Clearance by MoEF & CC and Monitoring report for the period October 2023 to March 2024 for NTPC Ltd – Pakri Barwadih Coal Mining Project (15MTPA): Reg.

Ref.: EC Ltr No. J-11015/692/2007-IA-II(M) Date 19th May 2009.

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 29.06.2016

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 07.12.2017

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 14.08.2018

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 10.11.2020

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 16.08.2023

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 09.11.2023

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 15.01.2024

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 06.03.2024

EC Amendment Ltr No. J-11015/692/2007-IA-II(M) Date 02.05.2024

With reference to above subject please find enclosed herewith the six-monthly status report on compliance of various conditions stipulated in the Environmental Clearance accorded to NTPC Ltd – Pakri Barwadih Coal Mining Project (18 MTPA) for the period October 2023 to March 2024. The monitoring reports on fugitive emission, effluent quality, ambient air quality, ground and surface water quality, noise measured data etc. are also enclosed with the report.

This is for your kind information please.

Thanking you.

Yours Faithfully,

Navin Kumar

[Navin Kumar]

नवीन कुमार / NAVIN KUMAR

कायला खनन परियोजनाएँ / DGM (ENV. MGMT.)

एनटीपीसी लिमिटेड / NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारीबाग / Hazaribag

Encl.: A/a

Copy to:

1. **Sc. E & Regional Director, Kolkata**, Central Pollution Control Board, Southern Conclave, Block 502, 5th & 6th Floors, Rajdhanga Main road, Kolkata-700107 (W.B), e-mail: mkbiswas.cpcb@nic.in.
2. **Regional Officer**, Jharkhand State Pollution Control Board, PTC Chowk, Hazaribagh, Jharkhand. Email-jspcb_hazaribagh@rediffmail.com
3. **Member Secretary**, Jharkhand State Pollution Control Board, Ranchi-834004 (Jharkhand). E-mail-ranchijspcb@gmail.com

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागौंव, हजारीबाग – 825311

Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311



**Report Period:
October-2023
to
March-2024**



Six Monthly EC Compliance Report



NTPC Mining LTD.

Pakri Barwadih Coal Mining Project.

COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE CONDITIONS

Period: October–2023 to March–2024

EC Clearance Ltr. No.J-11015/692/2007-IA.II (M) Dated 19th May 2009

& Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 29.06.2016

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 07.12.2017

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 14.08.2018

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 10.11.2020

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 16.08.2023

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 09.11.2023

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 15.01.2024

Amendment Ltr. No J-11015/692/2007-IA-II (M) Dated 06.03.2024

&

EC Transfer letter no. J-11015/692/2007-IA-II (M) Dated 02.05.2024



NTPC Mining Ltd – PAKRI BARWADIH COAL MINING PROJECT
Sikri Site Office

PO: Barkagaon, Dist: Hazaribagh
Jharkhand – 825 311

COMPLIANCE STATUS OF ENVIRONMENTAL CLEARANCE CONDITIONS

SL No	Conditions	Compliance/ Status report
SPECIFIC CONDITIONS		
I	The environmental clearance is restricted to Phase-1 of 39 years of opencast operations involving 3319.42 ha of ML area only for which exploration has been completed.	Noted. We shall always abide the said condition.
II	No mining operations shall be undertaken in the forest land within the ML until clearance has been obtained under the provisions of FC Act, 1980.	<p>All necessary clearances under the provisions of FC Act, 1980 has been obtained for the 1026.438 Ha of forest land involved vide:</p> <p>i. Stage I Clearance obtained vide letter no. "F. No 8-56/2009, dated 11th May 2010",</p> <p>ii. Stage II Clearance obtained vide letter no. "F. No 8-56/2009, dated 17th Sept 2010",</p> <p>iii. Final land release letter received from the State Govt. vide letter no. 3/Vanbhoomi-75/2009-1240 dated 31.03.2011.</p> <p>The Mining operation is restricted to the area only for which forest clearance has been accorded by MoEF&CC under the provisions of FC Act, 1980.</p>
III	The monolith found within the core zone shall not be disturbed by the mining operations and a minimum 500m distance along with thick green belt would be maintained between the eastern quarry and the monolith. A road would be created upto the monolith a park created around it so that the monolith could be visited.	To maintain thick green belt between Eastern quarry and Monolith, the existing green belt of 500m having large canopy trees, mainly of Mahua (Madhuca longifolia), Sisham (dalbergia sisoo) and other species between eastern quarry and Monolith has not been disturbed. Further, 13707 nos. of tree saplings have been planted around the eastern quarry to make the area green and fast-growing seedlings have been spread over the

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 जल सहायक (पर्यावरण प्रबंधन) / JCM (ENVT. MGMT.)
 (प्रोविजेंट ऑफिस) / NTPC Limited
 नवीन बंधन खनिज प्रोजेक्ट / COAL MINING PROJECTS
 झारखण्ड / Jharkhand

	<p>Amendment vide letter number- J-11015/692/2007-IA-II(M) Date- 07.12.2017</p> <p>The user agency would provide necessary fund to the state Government for construction of road up to the monolith and a park around it so as that the Monolith could be visited as for tourism purpose.</p>	<p>overburdens.</p> <p>NTPC is committed for development of the area in and around its projects; accordingly NTPC had requested the District Administration for submission of the estimate for development of the Megalith. After various correspondences, made with the District Administration gave an estimate of Rs. 3,03,92,449/- on 16.10.2023 for development of Megalith Park with direction to submit Rs. 50 Lakhs as an advance . Copy of the letter is attached as Annexure-1.</p> <p>Based on demand raised by the District Administration, the amount of Rs. 50,00,000 (Rupees Fifty Lac) has been deposited with the District Administration for development of Megalith Park, vide Cheque no. 090436 attached with letter no. NTPC/PBCMP/R&R-CD/2023, dated 28.10.2023. Copy of the letter attached as Annexure-2.</p>
IV	<p>Mining shall be carried out as per statuette from the streams/nallahs flowing within the lease. Embankment to be constructed shall be based on peak flow data and shall be at least 3m above the HFL. The slope of the embankment shall at least 2:1 towards the ML and shall be stabilized with plantation. The CWPRS would be engaged for the design and study of realignment of the drains / nalas flowing across the ML and creation of embankment, and also obtain approval of the State Government for diversion of the nalas.</p>	<p>The CWPRS was engaged for the study and designing of the realignment/ diversion of Nalas flowing across the ML and creation of embankment.</p> <p>Also, necessary permission/NOC has been obtained from State Water Resource Dept, GoJh vide their ltr. Ref. no. 2/PMC/ND-171/2012/224 dated 19.03.2013.</p> <p>Based on the above study report of CWPRS and NOC/permission from water resource Dept, GoJH, diversion of Dumuhani nala has been done.</p>
V	<p>Topsoil 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.</p>	<p>Top soil is being stacked in available suitable site. Same is being used for spreading over the completed portion of OB Dump for development of the green belt.</p> <p>To prevent erosion from top soil dumps, coir mats have been laid on the slopes. Further, to avoid soil erosion mixed grass</p>

Navin Kumar

नवीन कुमार / NAVIN KUMAR

डी.एम.एस. (संरक्षण विभाग), डी.एम. (एन्वि. एनटीसी)

एनटीसी लिमिटेड / NTPC Limited

खनिज एवं खनिजसम्पत्ति COAL MINING PROJECTS

हज़ारीबाग / Hazaribag

		<p>seed spreading and root shoots of Vertiver grass and lemon grass has been sowed on top soil dump.</p> <p>Apart from this 450-meter long toe wall along with garland drain and settling ponds have been constructed around the Top Soil dump near Itiz village. The garland drains are being repaired regularly before monsoon every year.</p>
VI	OB should be stacked at earmarked three external OB dump site within ML area of a maximum height of 90m.	As per approved revised Mine Plan, OB is being stacked at earmarked area. Presently height of the dump is 89.62 m with three terraces . It will be restricted to the maximum height of 90 meter.
	<p>Amendment vide letter number- J-11015/692/2007-IA-II(M) Date- 07.12.2017</p> <p>A minimum of 500m shall be maintained and thick green belt developed between the habitation of Barkagaon and OB dumps.</p>	<p>At present the working of mine is more than 4 km from Barkagaon village, to maintain thick greenbelt existing greeneries between mine and habitation of the Barkagaon have not been disturbed.</p> <p>Further, about 2500 trees have been planted along road side between East quarry and Barkagaon village. Apart from above 6065 nos. of trees have been planted in Langatu and Arahara village falling between Mining and Barkagaon village.</p>
	The option of raising the level of grazing land created after backfilling the quarry by 10m or so shall be examined so to reduce the overall OB dump height.	As per approved Mining Plan Grazing land of 223 Ha will be developed on back filled area of western & eastern quarries at the time of mine closure.
	Slope stability tests may be undertaken and the feasibility of backfilling depending on the type of cost-effective technology available at that stage shall be re-examined.	Slope stability tests have been conducted through the Central Institute of Mining and Fuel Research (CIMFR) Dhanbad & BIT, Sindri – Dhanbad for Dump–A and Dump-C & also for Western Mine Pit slopes. Slope stability Study of Eastern Quarry & EQ dump has been done by IIT-BHU.
	The ultimate slope of the dump shall not exceed 28°.	The ultimate slope of the dump is being/ shall be restricted to 28 degree.
	Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self-sustaining.	Monitoring & management of reclaimed dump site shall be carried out till the vegetation becomes self-sustaining

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 जल संसाधन (पर्यावरण प्रबंधन), DGM (ENVT. NGMT)
 (पर्यावरण संरक्षण) NTPC लिमिटेड
 खनन एवं जीवाश्म (COAL MINING PROJECTS)
 हजारीबाग / Hazaribag

	<p>Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneswar on yearly basis.</p>	<p>The half yearly compliance report of EC is being submitted regularly to the MoEF & CC Regional office Ranchi. Last report submitted online on Parivesh Portal and also submitted to regional office vide letter no.- 1040/PBCMP/EMG/2023/F-47/208 dated- 17/11/2023 through mail dated 17.11.2023. Copy of the mail enclosed as Annexure – 3.</p>
<p>VII</p>	<p>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 and length) and sump capacity should be designed keeping 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.</p>	<p>All the possible actions are being taken to arrest the silts from all the possible sources. The catch drains and the silt ponds are designed to contain the max rainfall and silt generation during the rain.</p> <p>The siltation ponds are being regularly de-silted and maintained properly and directly connected to garland drains. The water collected is utilized in green belt development, etc. Few Photographs are enclosed as Annexure-4.</p> <p>The maximum annual rainfall in last 10 years recorded at Barkagaon/Hazaribagh is 1750 mm (in 2021). The sump has been constructed keeping the safety margin more than 50% over and above the maximum rainfall in the area. Water so collected is being utilized for dust suppression in mining area, transport roads and also for green belt development etc. The catch drains are regularly being de-silted and maintained properly.</p> <p>The main sump is in the de-coaled area at dip most side so as to provide adequate retention period to allow proper settling of silt material.</p>
<p>VIII</p>	<p>Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.</p>	<p>OB dump is in active condition, i.e. presently excavated OBs are being dumped over the OB dump and hence, all the protection measures for soil erosion from OB dump are being taken based on rainfall. Last year (2023) monsoon the rainfall of 757.73 mm recorded at Barkagaon/Hazaribagh.</p> <p>To prevent erosion from dumps, 2400-</p>

Navin Kumar

		<p>meter toe wall followed by garland drain along the embankment, 735-meter toe wall followed by garland drain along the haul road facing Khora nala, 780-meter toe wall on the toe of the Dump 'C', 810-meter toe wall along the Dump 'A' and 560-meter toe wall followed by garland drain along the Top Soil dump have been constructed.</p> <p>The garland drains constructed all around the dumps are ultimately connected to the settling pit where the sediments are settled and allow the water to pass through it. Further, 4 Nos. of rock fill Check dam are also constructed to avoid any siltation in the nearby area.</p> <p>Apart from the above Catch drains also provided at workshop, offices etc. to direct the rain water to siltation pond at sump area to arrest silts and further to direct water to main sump.</p>
IX	<p>The main haul road of 6 Km within the core zone shall be metalled. A 3-tier avenue plantation shall be developed along the main approach road. Mineral Transportation from CHP to Railway Siding shall be by closed belt conveyor of a length of 7 Km. Th railway siding shall be provided with Silo Rapid Loading System.</p> <p>Amendment : letter number- J-11015/692/ 2007-IA-II(M) Date 29.06.2016</p> <p>The coal shall be transported through closed belt conveyor system of a length of 13 km to Banadag railway station. The project proponent is permitted for (2) years to use State Highway/public roads for transportation of coal (approx. 35 km) to Banadag Railway Siding by adopting all mitigative measures to control dust pollution. The project proponent shall put all the efforts to expedite completion of service road for belt</p>	<p>NTPC has already commissioned 13 Km of the Conveyor Belt Stream-A on 28.02.2022 and Stream-B on 30.11.2022. Part of the Coal is being transported through the same. The connecting 1.2 Km Silo with Rapid Loading System over a short distance of 1.2 Km between TP-10 and Banadag Railway Station could not be completed due to Land Acquisition and Law and Order Issues. Presently, the Land Acquisition issues have been resolved with the help of District Administration on 28.04.2023, the work for implementation of "Silo Rapid Loading System" and Rail Infra are in full swing and it is likely to be completed by Dec 2024.</p> <p>Part of the coal transportation is being done by trucks which is covered with the tarpaulin. Also, to prevent the dust generation due to plying of the trucks regular water sprinkling is being done along the transportation road. Photographs of water sprinkling is attached as Annexure-5.</p>

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 जल संसाधन (पर्यावरण प्रबंधन) - DGM (ENVT. NGMT)
 भारतीय निकासी निदेशक (NTPC) लिमिटेड
 कोयला खनन परियोजनाएँ (COAL MINING PROJECTS)
 हजारीबाग / Hazaribag

	<p>conveyor so that the same can be utilized for coal transportation.</p>	<p>Apart from the above the coal has been transported in wet condition from mine end to Banadag Railway Siding. For wetting the coal there are fog canons installed in the crusher area as well as coal stock yard of CHP.</p> <p>Photographs of the CHP are Enclosed as Annexure-6.</p> <p>Further, the coal which is transported through conveyor is done in closed belt passes through 10 nos. of Transfer Points (TP) all the TP have water injection system which regularly inject the water in the coal. There are two nos. of mist fog canon installed at the TP-10 to wet the coal or minimize the dust generation.</p>
	<p>Amendment: letter number- J-11015/692/ 2007-IA-II(M) Date 07.12.2017:</p> <p>The approach road of 6 km along northern boundary of mining lease shall be metaled. For development of 3-tier avenue plantation, northern sides of main approach road to be preferred in place of haul roads.</p>	<p>The approach road of 6 km along northern boundary of mining lease is metalled.</p> <p>The existing greenbelt along the Northern side of the main approach road has not been disturbed. Photographs attached as Annexure -7.</p> <p>Apart from the above till date total 5930 nos. of plants have been planted along the northern boundary as 3-tier avenue plantation. Photographs enclosed as Annexure-8.</p>
	<p>Condition IX, Amendment vide letter number-J-11015/692/2007-IA-II(M) Date 29.06.2016, letter number-J-11015/692/2007-IA-II(M) Date 14.08.2018, letter number- J-11015/692/2007-IA-II(M) Date 10.11.2020</p> <p>Thereby extension in amendments in EC dated 19th July 2018 for a period of two years (i.e upto 28th June, 2022) by road as an interim arrangement by adopting all mitigation measures to control dust pollution, which would include regular maintenance of roads, water sprinkling, covering trucks with tarpaulin sheet etc.</p>	<p>The EC has been amended vide MoEF & CC letter no. J-11015/692/2007-IA-II(M) dated 15.01.2024 which allows the coal transportation through road till July 2024. Copy of the EC attached as Annexure-9.</p> <p>Presently part of the coal produced from PBCMP mine is being transported through road in tarpaulin covered truck and rest of the coal is transported through conveyor belt. Photographs attached as Annexure-10.</p> <p>The rapid loading system of the Conveyor system is under construction and now all efforts are being made to complete the</p>

Navin Kumar

		same before 31.12.2024.
	<ul style="list-style-type: none"> Width of the road shall be at least 7 mts before the start of the transportation and necessary permission shall be taken from state PWD. 	Road which is used for transportation of coal is wider than 7mtr. For granting of necessary permission from state PWD a letter vide letter no.1040/PBCMP /ENV/2021/F-47/44 Dt 28.06.2021 has been submitted. Copy of letter was submitted in compliance reporting for the period of Oct,22 to March 2023.
	<ul style="list-style-type: none"> The State Pollution Control Board, while considering consent to operate for the project, shall ensure that with the proposed coal transportation by road, air quality would remain within the national ambient air quality standards. 	Agree to abide by the condition.
	<ul style="list-style-type: none"> The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been distributed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc." 	The mining activities are being carried out as per the approved mine plan and due care are being taken to minimize the adverse impact of the mining activity to surrounding areas. All the mitigation measures are being taken as per the approved EMP and Mine Closure Plan.
Condition IX, Amendment vide letter number-J-11015/692/2007-IA-II(M) Dated-16.08.2023.		
1.1	The PP needs to complete the construction of closed belt conveyor system of a length of 13 km to Banadag railway station. The project proponent is permitted till October, 2023 to use Service road/State Highways for transportation of coal to Banadag railway siding by adopting all mitigative measure to control dust pollution".	<p>Hon'ble Supreme Court extended the timeline for construction of Belt Conveyor system till 31.12.2024 through its order dated 29.01.2024. Copy of the order attached as Annexure-11.</p> <p>Further, the EC has been amended vide MoEF & CC letter no. J-11015/692/2007-IA-II(M) dated 15.01.2024 which allows the coal transportation through road till July 2024.</p> <p>Presently part of the coal produced from PBCMP mine is being transported through road in tarpaulin covered truck and rest of</p>

Navin Kumar

		<p>the coal is transported through conveyor belt.</p> <p>The rapid loading system of the Conveyor system is under construction, the work for implementation of "Silo Rapid Loading System" and Rail Infra are in full swing and it is likely to be completed by Dec 2024.</p>
1.2	Transportation of coal from service road instead of conveyor belt and silo loading system is subject to the outcome of Order of Hon'ble Supreme Court i.e. Civil Appeal No. 6249 of 2021 (in matter of National Thermal Power Corporation (NTPC) vs Tripurari Singh & Ors.)	<p>Agreed to comply.</p> <p>In the matter of Miscellaneous Application MA-001824/2023 dated 18.08.2023 submitted before hon'ble Supreme Court in Civil Appeal No. 6249 of 2021 (NTPC vs Tripurari Singh & Ors.), Hon'ble Supreme Court extended the timeline for construction of Belt Conveyor till 31.12.2024 through its order dated 29.01.2024. Copy of the order attached as Annexure-11.</p>
1.3	The PP shall submit the status of Dumhani nallah to IRO, MoEF&CC before October 2023 with photographs and drone video for diverted portion of Dumhani nallah. The project proponent shall also make all possible effort towards protecting catchment area of the streams flowing within the lease boundary as well as along the boundary of lease area.	<p>The Status Report of Dumuhani Nallah has been submitted to RO, MoEF&CC vide letter no- Ref: 1040/PBCMP/EMG/2023/F-47/199 Dated: 19.10.2023. The copy of the same already submitted in last compliance reporting submitted for the period of April 23 to Sept, 23.</p> <p>Work has been awarded to IIT-ISM for preparation of Catchment Area Treatment Plan (CAT Plan) vide work order dated 18.07.2023. Draft CAT Plan has been submitted to Forest Dept. for approval. After approval, action towards protecting catchment area of the streams flowing within the lease boundary as well as along the boundary of lease area shall be taken. Copy of work order is attached as Annexure-12.</p>
1.4	The PP shall deploy the covered truck with tarpaulin having size upto 50 tonnes for transportation of coal through Service road only. SPCB to ensure the strict compliance of condition.	Presently, part of the coal produced from PBCMP is being transported through road in tarpaulin covered truck size of up to 50 tonnes and part of the coal is transported through conveyor belt. Photographs are enclosed as Annexure-10.

1.5	The PP shall submit the status report of diverted Dumhani stream to IRO, MoEF&CC before October, 2023 ensuring that proper water management in catchment area has been made along with photographs and drone video for diverted portion. The project proponent shall also make all possible effort for protecting catchment area of other streams flowing within the lease boundary as well as along the boundary of lease area without their diversion.	As submitted at point no. 1.3.
1.6	The PP shall submit the complete compliance report of EC letter dated 19.05.2009 and subsequent amendment of ECs vide letter dated 29.06.2016, 07.12.2017, 14.08.2018 & 10.11.2020 respectively.	The half yearly compliance report of EC is being submitted regularly to the MoEF & CC Regional office Ranchi. Last report submitted online on Parivesh Portal and also submitted to regional office vide letter no.-1040/PBCMP/EMG/2023/F-47/208 dated- 17/11/2023 through mail dated 17.11.2023. Copy of the mail enclosed as Annexure – 3.
1.7	All the railway siding involved in loading and unloading of the materials which are prone to generate fugitive dust emissions, should install fixed type water sprinklers for effective dust suppression, should install settling pond of suitable capacity with chemical dosing system for treatment of the runoff water, should construct the wind breaking wall of 20 feet high to prevent the dusts to spread and should do tree plantation along the boundary wall.	<p>The coal is being transported to Banadag Railway Siding from where the coal is transported to different power plants of NTPC Ltd.</p> <p>At Banadag Railway Siding to minimize the dust generation, Permanent/fixed type-high capacity rain-guns have been installed on both side of railway siding. i.e., on the Northern as well as Southern Side. Apart from the above Fugitive emissions are being controlled by water sprinkling through 4 no. of 10 KL capacity water tankers. Photographs attached as Annexure-13.</p> <p>No run-off water is being discharged outside the railway siding. However, Garland drains have been constructed on both side of the Railway siding which ultimately connected with the de-silting pit. Treatment is being done with chemical dosing.</p> <p>Further, boundary wall has been</p>

Navin Kumar

		<p>constructed on both side of Banadag Railway Siding along with permanent wind screen of height 20 ft. i.e., North & South Side. Photographs attached as Annexure-14.</p> <p>Till date 1200 nos. of tree sapling have been planted along the periphery of the railway siding and available vacant land. Photographs attached as Annexure-15.</p>
1.8	<p>PP shall create a "Public Grievance Redressal and Monitoring System" for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regard, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A logbook to be maintained by PP on "Public Grievance Redressal and Monitoring System.</p>	<p>Public Grievance Redressal and Monitoring System has been established at Pakri Barwadih Coal Mining Project for resolving any issues related to the pollution of mines. The same has been reported to RO, MoEF&CC vide letter Ref: 1040/PBCMP/EMG/2023/F-47/199 Dated :19.10.2023. The copy of the same is attached as Annexure-16.</p> <p>A logbook is being maintained by PBCMP, NTPC Ltd on "Public Grievance Redressal and Monitoring System". Further an online system has also been established on 02.10.2023. Address of the same is https://www.ntpc.co.in/grievance/</p>
1.9	<p>PP shall pay to farmers of agricultural land if there is any loss due to pollution found by concerned District Commissioner as per extent rules or norms.</p>	<p>Agreed to comply.</p>
1.10	<p>PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non- compliance or infringement should be reported to the concerned authority.</p>	<p>Presently, Monitoring and analysis is being done through MoEF&CC and NABL accredited lab in consultation with the State Pollution Control Board. However, Environmental laboratory has already been setup at site with various equipment's. Photographs of laboratory is attached as Annexure- 17. List of equipments attached as Annexure-18.</p> <p>The dedicated team has been set up for looking after the environment management and monitoring work. Copy of the order and organization structure are attached as Annexure-19.</p>

Navin Kumar

नवा- कुमार / NAVIN KUMAR

एन एन सी खनन (एन टी सी खनन) लिमिटेड (NTPC Mining Limited)

एन टी सी खनन (एन टी सी खनन) लिमिटेड (NTPC Mining Limited)

एन टी सी खनन (एन टी सी खनन) लिमिटेड (NTPC Mining Limited)

एन टी सी खनन (एन टी सी खनन) लिमिटेड (NTPC Mining Limited)

1.11	PP to install solar lights along the road used for transportation of minerals to avoid the accidents at night and also seek its maintenance. PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year.	<p>To avoid the accidents at night, total 858 nos. of street lamp posts have been installed through Department of Energy, Govt of Jharkhand along the transportation road. Apart from that, 550 nos. of solar lights have been installed in the rural areas. However, as submitted during the inspection, most of the streetlights along the transport road in forest area, after installation and illumination, were damaged by the miscreants/antisocial elements. In this regard, it is humbly submitted that NTPC has initiated necessary action for the earliest repair & rectification of the damaged streetlights on the PBCMP dispatch.</p> <p>Apart from the above, the work of installation of 34 new solar lights/high mast along coal transportation road is in tendering process.</p>
1.12	PP to provide bio toilets to the villages located within the study areas within 1 year from the grant of this EC.	<p>The NTPC have already constructed 645 nos. of toilets in surrounding villages under Swachh Bharat Abhiyan.</p> <p>However, the work for award of contract for providing Bio-toilet to the villages located within the study area is under process. After award of the work same shall be constructed in the villages with study area.</p>
1.13	PP shall conduct feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with the Fly Ash Utilization Notification, 2021.	Similar study has been awarded to M/s CIMFER for another NTPC's project (Dulanga Coal Mine Project, Odisha). After completion of study and based on the recommendations same shall be implemented at Pakri Barwadih Coal Mining Project. Copy of the work order is attached as Annexure-20 .
Condition IX, Amendment vide letter number-J-11015/692/2007-IA-II(M) Date-09.11.2023.		
1.1	PP needs to implement the conditions laid down in amended EC letter dated 16.08.2023 wherein additional safeguards with regard to road	<p>Noted. We shall always abide the said condition.</p> <p style="text-align: right;"><i>Navin Kumar</i></p> <p style="text-align: right;">नवा- कुमार / NAVIN KUMAR डी.एम.ए. (तंत्रज्ञान विभाग) / DGM (ENVT. MGMT.) पक्रि बारवादिह कोयला खनन परियोजना / Pakri Barwadih Coal Mining Project हजारीबाग / Hazaribag</p>

	transportation have been provided.	
1.2	PP needs to submit the Certified Compliance Report (CCR) from IRO for the Amendment of Environmental Clearance (EC) letter dated 16.08.2023 and their respective Action taken report by 15 December 2023.	Certified Compliance Report (CCR) has been obtained from IRO-MoEF & CC, Ranchi, and same has been submitted to MoEF & CC, New Delhi Vide our letter no. 1040/PBCMP/EMG/2023/F-47/243 Dated 15.12.2023 through mail 15.12.2023. Copy of the mail is attached as Annexure-21 .
1.3	PP shall collect the One-month baseline data on environmental quality-air (PM10, PM2.5, Sox, Nox and heavy metals such as Hg, Pb. Cr, AS etc.), noise, water (surface and groundwater), soil at different location of the existing coal transportation route.	One-month baseline data on environmental quality-air (PM10, PM2.5, Sox, Nox and heavy metals such as Hg, Pb. Cr, AS etc.), noise, water (surface and groundwater), soil at different location of the existing coal transportation route has been submitted Vide our letter no. 1040/PBCMP/ EMG/2023/F-47/243 Dated 15.12.2023. Copy of the mail and lab reports are attached as Annexure-21 .
1.4	PP needs to submit the Compliance of above condition no. (ii) in order to address the matter of court cases pending before the Hon'ble Supreme Court for National Thermal Power Corporation (NTPC) v. Tripurari Singh in Miscellaneous Application No. 1824/2023 in Civil Appeal No. 6249 of 2021.	As submitted at point 1.2.
Condition IX, Amendment: letter number-J-11015/ 692/ 2007-IA-II(M) Date 15.01.2024:		
Specific Conditions:		
1.1	PP needs to submit the monthly progress report of conveyor belt and silo loading system to IRO, MoEF&CC.	Monthly progress report of conveyor belt and silo loading system is regularly being submitted to RO-MoEF & CC, Ranchi. The last monthly report for the month of April 2024 has been submitted to RO office vide our letter no. 1040/PBCMP/EMG/2024/F-47/79 Dated 03.05.2024 through email dated 04.05.2024. Copy of the mail is attached as Annexure-22 .
1.2	PP needs to implement the conditions laid down in amended EC letter dated 09.11.2023 wherein additional safeguards with regard to road transportation have been provided.	Agreed. All possible measures are being taken to safeguard the environment with regard to road transportation.
1.3	PP shall collect the One-month	The work order has been awarded to M/s

Navin Kumar
नवा- कुमार / NAVIN KUMAR
आपातकालीन प्रतिकार (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार)
आपातकालीन प्रतिकार (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार)
आपातकालीन प्रतिकार (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार)
आपातकालीन प्रतिकार (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार) (आपातकालीन प्रतिकार)

	<p>baseline data on environmental quality – air (PM10, PM2.5, SOx, NOx and heavy metals such as Hg, Pb, Cr, AS, etc), noise, water (surface and groundwater), soil at different location of the existing coal transportation route.</p>	<p>Minmec Consultancy Pvt. Ltd. for collection of one-month base line data on environment quality – air (PM10, PM2.5, SOx, NOx and heavy metals such as Hg, Pb, Cr, AS, etc), noise, water (surface and groundwater), soil at different location of the existing coal transportation route vide work order no. 4000331821-108-1040 Date: 24.04.2024. Copy of the work order is attached as Annexure-23.</p> <p>The monitoring work and analysis under progress. The monitoring report will be submitted in next half yearly compliance report. Some photographs are attached as Annexure-24.</p>
1.4	<p>The plantations done by the PP need to be adequately densified and audited by a third party preferably a forestry institution of MoEFCC (eg ICFRE) to assess their efficacy. Densification of existing plantations shall also be done during the monsoon of 2024.</p>	<p>Till date, Pakri Barwadih Coal Mining Project has planted more than 3.27 Lakhs of tree saplings within the lease as well as along the roads outside the lease area. Apart from the above, 10,172 nos. of tree saplings have been distributed to local villagers at and around the Pakri Barwadih Coal Mining Project.</p> <p>For auditing the plantation done by the Pakri Barawadih Coal Mining project, work has been awarded to ICFRE vide work order dated 01.04.2024. Copy of the work order attached as Annexure-25.</p>
1.5	<p>PP needs to fully comply with EC conditions and submit the Certified Compliance Report (CCR) from IRO for the Amendment of Environmental Clearance (EC) and their respective Action taken report.</p>	<p>The request letter has been submitted to RO-MoEF & CC for issuance of Certified compliance report vide our letter no. 1040/PBCMP/EMG/2024/F-47/71 Dated 12.04.2024 through mail dated 12.04.2024. Copy of mail is attached as Annexure-26.</p>
1.6	<p>The matter shall be reviewed again by EAC in June/July 2024 for compliance of above with updated status of construction of belt conveyor system.</p>	<p>Noted.</p>
1.7	<p>PP needs to submit the Compliance of above conditions in order to address the matter regarding court cases pending before the Hon'ble Supreme Court for National Thermal Power Corporation (NTPC) v. Tripurari Singh in Miscellaneous Application No.</p>	<p>Miscellaneous Application MA-001824/2023 dated 18.08.2023 submitted before hon'ble Supreme Court in Civil Appeal No. 6249 of 2021 (in matter of National Thermal Power Corporation (NTPC) vs Tripurari Singh & Ors.) has been disposed off by Hon'ble Supreme</p>

Navin Kumar

	1824/2023 in Civil Appeal No. 6249 of 2021.	Court and extended the timeline for construction of Belt Conveyor till 31.12.2024 vide its order dated 29.01.2024. Copy of the order attached as Annexure-11 .
X	Drills should be wet operated only.	Drilling machine with inbuilt water injecting system is being utilized for drilling purpose. Also, regular water spraying is being carried out in the drilling area for minimization of the fugitive dust emission.
XI	Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.	Blasting patterns have been designed based on the study conducted by CIMFR Dhanbad. As suggested by CIMFR, Dhanbad, controlled blasting technique with use of non electric detonators is being practiced to minimize ground vibration and to avoid fly rocks & boulders. Also blast vibration monitoring is being done regularly (<i>and also through third party</i>) to determine any adverse impact due to blasting. The test results are well within the norms prescribed by the DGMS. The latest test report of the same is enclosed as Annexure – 27 .
XII	No additional groundwater (bore well) shall be used for mining operations. Additional water if any required for the project shall be used from recycled water or mine discharge water or rainwater collected in rainwater harvesting pits within the CML.	As stipulated, the requirement of water for other activity viz.: dust suppression, gardening and vehicle washing etc. are being fulfilled through recycled water, mine seepage water and rain water. Ground water is being used mainly for domestic use.
XIII	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity should be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of	Monitoring of groundwater levels are being carried out by manual monitoring at 10 locations around the mining lease area. Apart from manual monitoring, automatic water level recorders (Piezometers) have been installed at two locations viz.: Langatu site office, Sikri site office. The data so generated is being submitted to Ministry of Environment & Forests and Climate Change & Central Pollution Control Board. Last six months water level data is enclosed as Annexure – 28 . Water quality report of month November-2023 &

Navin Kumar

नेवा- कुमार / NAVIN KUMAR

ज्वा प्रमुख (सुरक्षा विभाग), DGM (ENV. NGMT)

प्रायोजक (NTPC) NTPC Limited

खनन एवं खनिज संसाधन (COAL MINING PROJECTS)

हजारीबाग / Hazaribag

	<p>monitoring.</p>	<p>January-2024 is attached as Annexure – 29.</p>
	<p>Rainwater structures shall be erected in the core and buffer zone, in case monitoring indicates a decline in water table.</p>	<p>Various conservation measures are being taken in Pakri Barwadih Coal Mining Project for rainwater harvesting. The Roof top rainwater structure has been constructed and also rejuvenated the existing ponds in nearby villages for improving the ground water of the area. Approximately 1.49 lakh m³/year of ground water is being recharged at Pakri Barwadih Coal Mining Project. Details of the same and Photographs attached as Annexure-30.</p> <p>Apart from the above, approx. 23 lakh m³ of rainwater have been stored in the East quarry for use in dust suppression, plantation activity and the same water is used for other miscellaneous use also. In addition to that, 12 Nos. of Check dams have been constructed in Pakwa and Khora Nala to meet water requirements and to augment the groundwater of the area around PBCMP. The estimated cumulative storage capacity of the Check dams is 16.18 lakh cum. And estimated groundwater recharge potential of approx. 340.52 lakh m³/year through the Check Dams. Details and photographs of the Check Dams are attached as Annexure-31.</p>
<p>XIV</p>	<p>The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.</p>	<p>As mentioned, regular monitoring of the ground water table in the surrounding villages is being done to determine the any adverse impact on to the ground water regime.</p> <p>However, NTPC Ltd, under its social obligation, have installed 22 Nos. of hand pumps and 10 nos. of Tube wells in nearby villages in FY 2023-24 and also, to meet the further water requirement of the nearby villages, adequate mobile tankers are deployed during summer season. List of Handpumps and Tubewells installed is attached as Annexure-32.</p>

Navin Kumar

XV	<p>Sewage treatment plant of adequate capacity shall be installed in the colony.</p>	<p>Sewage Treatment Plant (STP) of 1.5 MLD capacities has been installed in R&R colony.</p> <p>Further, STP of 25 KLD of MBBR technology is installed at Langatu site office for treatment of the sewage generated and 300 KLD capacity STP of MBBR technology is also installed at MDO Colony, Sikri.</p> <p>The treated water are being used for horticulture purpose and no water is being discharged outside.</p> <p>Quality monitoring of the treated sewage water is being carried out at stipulated frequency. Latest monitoring report with photographs are attached as Annexure-33.</p>
	<p>ETP should also be provided for workshop and CHP wastewater.</p>	<p>For treatment of wastewater generated at HEMM Washing Centre, an Electromechanical ETP with capacity of 200 KLD has been installed at Mine workshop. Test report with photographs of ETP is attached as Annexure-34.</p> <p>Apart for the above for treatment of waste water generated in CHP area, settling pond has been constructed. After treatment of waste water same is being re-used in dust suppression. Photographs of settling tank is attached as Annexure-35.</p>
	<p>Treated wastewater meeting prescribed norms only shall be recycled for mining operations to the extent possible and permitted to be discharged in to the natural water courses only if it meets the prescribed standards.</p>	<p>Till date no discharge is being done into any natural water course. Treated waste water is being re-cycled and reused for various mining operations as reported.</p>
XVI	<p>The total area that shall be brought under afforestation at the time of mine closure shall not be less than 1199 ha which includes reclaimed topsoil soil dump area (25 ha), external OB dump (632 ha), backfilled area (524 ha), along ML boundary, embankment and undisturbed area, along roads and infrastructure, green belt (18 ha), and</p>	<p>Shall always be complied with.</p> <p>Overburden dump "C" and "A" are in active condition, i.e. presently excavated OBs are being dumped over the OB dumps and hence, at the active side of dump plantation is not possible. However, more than 1.5 lakhs of tree sapling have already been planted with dense</p>

Navin Kumar

	<p>in township outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.</p>	<p>plantation all other parts of closed side of the OB Dump-C as well as more than 45 thousand plant saplings have been planted along the slope of the Dump-A. Photographs are attached as Annexure-36.</p> <p>Further, more than 20 thousand plant saplings have already been planted along the OB dump-D and vacant part of the eastern quarry. Photographs are attached as Annexure-37.</p> <p>It would very much relevant to mentioned here that more than 3.27 Lakhs of tree saplings have been planted and 10,172 nos. of tree saplings have been distributed to local villagers in and around the Pakri Barwadih Coal Mining Project. Details of year wise plantation/distribution taken up by NTPC Limited till date is enclosed as Annexure-38.</p> <p>Also, for mass awareness, the NTPC Ltd – PBCMP is actively participating in "Van Mahotsav" "Tree Raksha Bandhan", "Paryavaran Mela" etc. being organized by State Forest Department.</p>
<p>XVII</p>	<p>A Progressive Mine Closure Plan shall be implemented by reclamation of 524 ha, of the total quarry area of 1785 ha, which shall be backfilled and afforested by planting native plant species in consultation with the local DFO/ Agriculture Department. The density of the trees should be around 2500 plants per ha. Of the total reclaimed backfilled area, 223 ha shall be grazing land and 442 ha shall be agricultural land for utilization of the villagers. Of the balance 1261 ha of quarry area, an area of 596 ha of de-coaled area/void being converted into a water reservoir shall be gently sloped and the upper benches of the reservoir shall be terraced and stabilized with plantation and the remaining 665 ha is for public use for</p>	<p>Shall always be complied with.</p> <p>Till March 2024 total area of approx. 127.75 Ha was being backfilled. However internal dumping is in active stage and Mining / reclamation shall be implemented at the cost of project.</p> <p>Escrow account has been opened and amount is being deposited annually. As per direction received from CCO an amount of Rs. 16.2607 Crores have been deposited in the FY 2023-24 as 8th (FY 2023-24) & 9th (FY 2024-25) year Mine Closure cost.</p> <p>Till date Rs. 62.45 Crore have been deposited in Escrow account as part of the Mine Closure cost. Detail of amounts deposited in ESCROW is enclosed as</p>

Navin Kumar

	Phase-2 of the project.	Annexure- 39.
XVIII	<p>Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.</p>	<p>Regular periodic medical check-up of all mine workers as per DGMS guidelines is being carried out at project hospital.</p> <p><i>"Occupational health study in Pakri Barwadih Coal Project with special reference to respiratory health and hearing impairment assessment"</i> was conducted through Regional Occupational Health Centre (Eastern), Kolkata & National Institute Of Occupational Health, Ahmedabad. Report of the same already submitted in last half yearly compliance report.</p> <p>As of now, no case of occupational disease and hearing impairment has been reported.</p>
XIX	<p>Condition XIX, Amendment vide letter lumber-J-11015/692/2007-IA-II(M) Date 07.12.2017</p> <p>A detailed R&R Plan for the life of the project comprising land losers, homestead losers and land and homestead losers, including tribals to be displaced from the project area shall be prepared and implemented in a stipulated time frame. Project proponent will implement the approved R&R plan as per phased requirement of displacement. The compensation shall be not less than that specified in the National R&R Policy.</p> <p>Provision shall also be made in the R&R Plan to take care of the land less labourers and the tribals. The total expenditure on R&R shall not be less than Rs. 2976 Cr, which includes private land acquisition (Rs. 982 Cr) and R&R (Rs.1492 Cr). Alternate livelihood and skill development programmes and schemes shall be implemented as part of R&R and CSR.</p>	<p>NTPC Project's R&R Plan has been approved vide Govt. of Jharkhand (GoJh) Gazette Notification and forwarded vide letter No. 116 /R dated 27.02.2013 which is in line with the Jharkhand R&R Policy.</p> <p>As per the approved Govt. of Jharkhand (GoJh) Sankalp No. 116 / R dated 27.02.2013, houses have been constructed in the R&R colony at Dhenga along with all necessary infrastructure.</p> <p>Total 77 HSOs shifted to the R&R colony at Dhenga. Some of the PAFs (Project Affected Families) have opted for self-relocation. Based on the demands of PAFs, a special package has been designed to compensate each self-relocating family. Till March 2024, total 1501 PAPs have been resettled.</p> <p>As per the Socio-economic survey which has been mentioned in Sankalp document, SI No. 3, page no. 2, there are no ST PAF in the project area.</p> <p>The total approved expenditure for R&R as on 31.03.2024 in Rs. 7455.38 Lakhs.</p>

Navin Kumar

		<p>Further, through MAITI (Mining and Industrial Training Institute/ ITI Dhenga) {Being run through JGTR (Jharkhand Govt. Tool Room, Ranchi) from funds provided by NTPC}, capacity building of youths of the project area is being carried out by PBCMP (Pakri Barwadih Coal Mining Project). Other training programs for Women Empowerment and providing skillsets for alternate livelihood options are also being organised at MAITI by PBCMP.</p> <p>Till 31.03.2024, 461 nos. of student got employed after passing from MAITI Dhenga.</p>
XX	The project authorities shall carry out a pre-mining socio-economic survey based on the UNDP Human Development Report and monitor the socio-economic status once every three years and maintain records thereof and report in their Annual Report, the socio-economic impact of R&R and CSR activities.	<p>Pre-mining Socio economic survey has been undertaken through IIT Kharagpur and Abhigyan Samiti.</p> <p>For monitoring socio economic status, a contract for conducting Social Impact Assessment in the project affected villages of PBCMP has been awarded to M/s. Deloitte Touche Tohmatsu India LLP, Gurgaon dated 16.09.2020. The study report has already been submitted in previous compliance report.</p>
XXI	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: 23 ha) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhubaneswar.	The LULC study is being carried out in every three years interval. The last study was conducted in the year 2019-22 and report of the same was submitted to the MoEF & CC with HYMR (Oct. 2022 to March 2023). The next study shall be conducted for the period 2022-25.
XXII	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	A Final Mine Closure Plan shall be submitted to MoEF & CC for approval well in advance as per stipulation.

Specific Conditions as per EC (PRC-18 MTPA) letter J-11015/692/2007-IA-II(M) Dated 06.03.2024

1.1	PP to obtain the CTO for Opencast	CTO for PBCMP capacity of 18 MTPA has
-----	-----------------------------------	---------------------------------------

Navin Kumar
 नवा- कुमार / NAVIN KUMAR
 जल सहायक (परिचालन प्रभाग) / JAL SAHAYAK (PARICHALAN PRABHAG)
 (पर्यावरण विभाग) / NTPC Limited
 (पर्यावरण विभाग) / ENVIRONMENTAL
 (पर्यावरण विभाग) / HAZARIBAG

	coalmine capacity of 18 MTPA after grant of EC	been obtained vide Ref No. JSPCB/ HO/ RNC/ CTO-18605537/ 2024/379, Dated-10.03.2024. Copy of the CTO is attached as Annexure-40 .
1.2	No mining activities shall be carried out within an area of 193.85 Ha till the time PP obtains all the valid permission and mining lease from the concerned authorities as per law.	Agreed. Mining activity within area of 193.85 Ha shall be carried out after only obtaining valid permission and mining lease from concerned authorities as per law .
1.3	PP shall ensure for control of polluting during the transportation of mineral/waste/OB and implement all the mitigative measures as mentioned in EMP. The budget earmarked for the same shall be kept in a separate account and audited annually. The expenditure incurred shall be reported to RO along with proof of activities carried out.	<p>All the possible measures are being taken to control the fugitive dust emission. Dust suppression at mines haul roads & other dust generating areas like truck loading & unloading points is being carried out by engaging 25 nos. mobile water tankers. Details are as under:</p> <p>12KL: 04 Nos. 14KL: 06 Nos. 16KL: 05 Nos. 20KL: 04 Nos. 25KL: 01 No. 28KL: 03 Nos. 70KL: 01 No. 80KL: 01 No.</p> <p>Apart from the above approx. 2 Km fixed water sprinklers are installed at main haul road.</p> <p>It would very much relevant to mentioned here that the 80 KL water tanker is being used in the Pakri Barwadih coal mining project which is unique in India.</p> <p>Further arrangement has been made to bring water from Eastern Quarry by pipeline to Western Quarry for adequate availability of water for dust suppression.</p> <p>Also, water accumulated in, Eastern Quarry is being used for dust suppression in coal transport road through water tankers and in the coal stock yard of CHP area.</p> <p>For controlling of the fugitive dust emissions wet drilling with water injection</p>


Navin Kumar

	<p>system is being in practice during drilling operations.</p> <p>Further to minimize the dust generation, part of the coal transportation is being done by trucks which is covered with the tarpaulin. Also, to prevent the dust generation due to plying of the trucks regular water sprinkling is being done along the transportation road.</p> <p>Also, the coal has been transported in wet condition from mine end to Banadag Railway Siding. For wetting the coal there are fog canon installed in the crusher haupers as well as coal stock yard of CHP. Photographs attached as Annexure-41.</p> <p>Apart from the above the coal which is transported through closed belt conveyor passing through 10 nos. of TPs (Transfer Points) which have water injection system which regularly injects the water in the coal. There are two nos. of mist fog canon installed at the TP-10 to wet the coal or minimize the dust generation. Also, green wind screen/net shed has been erected around the coal stock yard of TP-10.</p> <p>Further at Banadag Railway Siding, Fixed type 10 nos of water sprinkler with rain gun has been installed on both side of the Railway Siding. Also, regular water sprinkling is being done through the water tanker. Apart from the above to minimize the dust propagation 2 Km long wind screen of 20 ft. height have been installed on both side of the Banadag Railway Siding.</p> <p>As per the EIA/EMP-2023 102.88 Crores Capital cost and Rs. 8.45 Crores Recurring cost are earmarked as cost of environmental control measures.</p> <p>The expenditure incurred during Oct, 2023 to March 2024 is attached as Annexure - 42.</p>
--	---


Navin Kumar

1.4	PP shall install CCTV camera at all entry and exit point.	CCTV camera has been installed at all entry and exit point of mines. Photographs attached as Annexure-43 .
1.5	PP shall use mine water for all purpose except for drinking and install dual pumping system. PP shall reduce the water requirement from bore well to 30% within a period of two years.	Ground water abstracted through bore wells are being used for domestic purpose only. For use of water in dust suppression, vehicle washing, etc mine water or recycled water is being used. To meet the purpose for treatment of wastewater generated at HEMM Washing Centre, an Electromechanical ETP with capacity of 200 KLD has been installed at Mine workshop. Test report with photographs of ETP is attached as Annexure-34 . Apart for the above for treatment of waste water generated in CHP area settling pond has been constructed. After treatment of waste water same is being re-used in dust suppression. Photographs of settling tank is attached as Annexure-35 .
1.6	PP shall increase the area under agriculture & grazing land and area of void to be reduced suitability as committed during the meeting. PP shall get the mining plan modified accordingly.	Noted. The mining plan and mine closure plan shall be modified to increase the final area under agriculture & grazing land and to reduce final void size.
1.7	PP shall not dump any waste/OB outside the mine lease area.	Agreed.
1.8	PP shall prepare the scientific reclamation plan in order to reduce the void area post mining.	Agreed
1.9	PP should conduct the monthly review meeting with the environment management committee of the company.	Noted. Monthly review meeting is being conducted with the environment management committee of the company.
1.10	PP shall ensure that all type of plastic waste generated from the mines shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016. In pursuant to Ministry's OM dated 18/07/2022 PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic (SUP) in order to ensure compliance of Ministry's Notification	All the mitigation measures taken for generation of plastic waste, further we ensure to purchase the materials with recycle-reused and bio-degradable packaging from the authorized vendor. Various awareness programs such as Nukkad natak, Pamphlet distribution, Essay/slogan competition & others have been conducted during FY 2023-24 for ban on Single Use Plastic. Photograph enclosed

Navin Kumar

	published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six-monthly compliance report being submitted by PP.	as Annexure-44 .
1.11	All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC and PARIVESH Portal as the case may be for the activities carried out during previous year.	All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission is being implemented at site and audited statement is being submitted annually. Audited report along with activities for FY 2022-23 is attached as Annexure-42 . Audit report for the period of FY 2023-24 is under process. After completion same shall be submitted in next compliance report.
1.12	PP shall conduct feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with the Fly Ash Utilization Notification, 2021	Similar study has been awarded to M/s CIMFER for another NTPC's project (Dulanga Coal Mine Project, Odisha). After completion of study and based on the recommendations same shall be implemented at Pakri Barwadih Coal Mining Project. Copy of the work order is attached as Annexure-20 .
1.13	Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgment dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.	Agreed. The mining activity has been carried out as per approved mine plan and Mine Closure plan. The implementation report of the said condition shall be sent to the Regional Office of the MoEF&CC after ceasing of mining operations.
 नवीन कुमार / NAVIN KUMAR (Regional Office of MoEF&CC) (Regional Office of MoEF&CC) (Regional Office of MoEF&CC)		

GENERAL CONDITIONS


 NTPC Mining Limited
 Coal Mining Projects

I	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	Agreed
II	No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made.	The OM from MoEF&CC vide F.No. 22-44/2018-IA.III dated 14.05.2020 regarding flexibility in coal or mineral production of capacity irrespective of calendar plan subject to maximum of capacity granted in the environmental clearance, is being followed.
III	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO ₂ , NO _x and heavy metals such as Hg, Pb, Cr, As, etc. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.	<p>All the possible measures are being taken to improve the air quality through establishing 8 nos. AAQ monitoring stations in the core as well as buffer zone of the ML area in consultation with the Jharkhand State Pollution Control Board (JSPCB). Copy of the approval attached as Annexure-45.</p> <p>There are 4 no. of monitoring station in core zone i.e. Urub Village, Nagari Village, Langatu Village, Pakri-Barwadih village and there are 4 nos. of monitoring stations in the buffer zone such as Kandaber village, Garikalan Village, Dhenga village and Kusumbha Village.</p> <p>Further to ensure the work zone air quality fugitive dust is being monitored in different locations of the working zone. The locations are Excavation area, Haul road, Overburden Dump, Top-soil Dump, Workshop, Drilling and Crusher area. Monitoring data of the month of Oct, 23 to March 2024 is attached as Annexure-46.</p> <p>Apart from the above One no. CAAQMS has been installed to monitor Ambient Air Quality at Langatu village in Mining lease area (Core zone) in consultation with JSPCB officials.</p>
IV	Fugitive dust emissions (SPM and RSPM and heavy metals such as Hg, Pb, Cr., As, etc) from all the sources shall be controlled regularly monitored and data recorded properly.	All the possible measures are being taken to control the fugitive dust emission. Dust suppression at mines haul roads & other dust generating areas like truck loading & unloading points is being carried out by engaging 25 nos. mobile water tankers.

Navin Kumar

	<p>Water spraying arrangement on haul roads, wagon loading, and dump trucks (loading and unloading) points shall be provided and properly maintained.</p>	<p>Details are as under:</p> <p>12KL: 04 Nos. 14KL: 06 Nos. 16KL: 05 Nos. 20KL: 04 Nos. 25KL: 01 No. 28KL: 03 Nos. 70KL: 01 No. 80KL: 01 No.</p> <p>Apart from the above approx. 2 Km fixed water sprinklers are installed at main haul road.</p> <p>It would very much relevant to mentioned here that the 80 KL water tanker is being used in the Pakri Barwadih coal mining project which is unique in India.</p> <p>Further arrangement has been made to bring water from Eastern Quarry by pipeline to Western Quarry for adequate availability of water for dust suppression.</p> <p>Also, water accumulated in, Eastern Quarry is being used for dust suppression in coal transport road through water tankers and in the coal stock yard of CHP area.</p> <p>For controlling of the fugitive dust emissions wet drilling with water injection system is being in practice during drilling operations.</p> <p>Further to minimize the dust generation, part of the coal transportation is being done by trucks which is covered with the tarpaulin. Also, to prevent the dust generation due to plying of the trucks regular water sprinkling is being done along the transportation road.</p> <p>Also, the coal has been transported in wet condition from mine end to Banadag Railway Siding. For wetting the coal there are fog canon installed in the crusher</p>
--	---	--

Navin Kumar

		<p>haupers as well as coal stock yard of CHP. Photographs attached as Annexure-41.</p> <p>Apart from the above the coal which is transported through closed belt conveyor passing through 10 nos. of TPs (Transfer Points) which have water injection system which regularly injects the water in the coal. There are two nos. of mist fog canon installed at the TP-10 to wet the coal or minimize the dust generation. Also, green wind screen/net shed has been erected around the coal stock yard of TP-10.</p> <p>Further at Banadag Railway Siding, Fixed type 10 nos of water sprinkler with rain gun has been installed on both side of the Railway Siding. Also, regular water sprinkling is being done through the water tanker. Apart from the above to minimize the dust propagation 2 Km long wind screen of 20 ft. height have been erected on both side of the Banadag Railway Siding.</p>
V	<p>Data on ambient air quality (SPM, RSPM, SO₂, NO_x and heavy metals such as Hg, Pb, Cr, As, etc)) shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months.</p>	<p>Environmental monitoring of ambient air quality is being done through MoEF&CC approved and NABL accredited Lab at CPCB prescribed intervals.</p> <p>Data for the Period Oct. 2023 to March-2024 is enclosed as Annexure-47.</p> <p>The Last report was submitted online on Parivesh Portal and to regional office vide letter no.- 1040/PBCMP/EMG/2023/F-47/208 dated- 17.11.2023 through mail dated 17.11.2023. Copy of the mail enclosed as Annexure-3.</p>
VI	<p>Adequate measures shall be taken for control of noise levels below 85 dB (A) in the work environment.</p> <p>Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.</p>	<p>Effective measures are being taken to minimize the noise level below 85 dB (A) in the work zone. All the equipments/machines are provided with acoustic enclosure cabins.</p> <p>Workers engaged in noisy operations are provided with earplugs/muffs. Noise levels are also being monitored at regular intervals the results are well within the</p>

Navin Kumar

		prescribed norms. Noise monitored data is enclosed as Annexure-48.
VII	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	No waste water from the mine is discharged outside. For treatment of waste water generated at HEMM Washing station, an Electro Mechanical ETP has been installed at Mine workshop and Oil and grease trap with sedimentation pit is integral part of the ETP installed. Effluent quality data are enclosed as Annexure-34.
VIII	Vehicular emissions shall be kept under control and regularly monitored.	Planned preventive maintenance of all vehicles plying for project is being done periodically. All the vehicles deployed at PBCMP are PUC compliant. PUC certificate of some of the vehicle is enclosed as Annexure - 49.
IX	Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board. Amendments dt 07.12.2017: The monitoring shall be done by NABL/MoEF&CC accredited Laboratory.	Presently Monitoring and analysis is being done through MoEF&CC and NABL accredited lab in consultation with the State Pollution Control Board. However, environmental laboratory also has been setup at site with various equipment's. Photographs of laboratory is attached as Annexure- 17. List of equipments attached as Annexure-18.
X	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. 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.	All the possible measures are being taken to control the fugitive dust emission. Apart from controlling fugitive dust emission, Personal protective respiratory devices are provided to personnel working in dusty areas & adequate training on safety & health are also being imparted. "Occupational health study in Pakri Barwadih Coal Project with special reference to respiratory health and hearing impairment assessment" was conducted through Regional Occupational Health Centre (Eastern), Kolkata & National Institute Of Occupational Health,

Navin Kumar

		<p>Ahmedabad. Report of the same has been submitted in last submitted half yearly compliance report.</p> <p>As of now no case of occupational disease and hearing impairment has been reported.</p>
XI	<p>A separate environmental 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.</p>	<p>At the corporate office, a separate Environmental Management Cell is functioning under senior executive who is reporting to Head of the Company to look after the implementation of the various pollution control measures and other Environment Management System requirements.</p> <p>At local level, dedicated department for Environment Management is also functional with qualified Environmental Engineer. Head of the Department directly reports to Head of the Project. The working level staffs Environment Mgmt. have been deployed through MDO. The organization chart of the same is enclosed as Annexure – 50.</p>
XII	<p>The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose.</p> <p>Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhopal.</p>	<p>The requisite funds for environmental mitigation measures have been included in the project cost.</p> <p>An amount of Rs. 6.152 Crores has been spent during Oct.-2023 to March-2024 for the Environment Management.</p> <p>Till March 2024 we have spent an amount Rs. 83.395 Crores (Rs. 71.778 Crores – Audited and Rs. 5.465 Crores - Unaudited) for the Environment Management. Details attached as Annexure-42.</p> <p>Further Escrow account has been opened and amount is being deposited annually. As per direction received from CCO an amount of Rs. 16.2607 Crores have been deposited in the FY 2023-24 as 8th (FY 2023-24) & 9th (FY 2024-25) year Mine Closure cost.</p> <p>Till date Rs. 62.45 Crore have been deposited in Escrow account as part of the</p>

Navin Kumar

		Mine Closure cost. Detail of amounts deposited in ESCROW is enclosed as Annexure- 39.
XIII	The Regional Office of this Ministry located at Ranchi shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Full co-operation is being extended by the project authorities to the officers of MoEF/ RO during their inspection / site visit.
XIV	A copy of the EC will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	No suggestion / representation have been received while processing the proposal. Copy of the EC letter has been sent to the local administrative offices and the EC letter has been also uploaded on the company's website www.ntpc.co.in . The copy of EC dated 06.03.2024 has also been submitted to concerned panchayat/ Mukhiya. Copy of the letter attached as Annexure-51.
XV	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/ Tehsildar's Office for 30 days.	Copy of the EC letter was sent to office of District Industry centre, District Collector office for display. A copy of the EC has been also marked to JSPCB for display at their Regional office. After EC amendment dated 06.03.2024 the EC letter has also been submitted to District collector, Hazaribagh, JSPCB Regional office Hazaribagh, JSPCB Ranchi, District Industry Center, Hazaribagh, Municipal Office, Hazaribagh, Concerned COs. Copy of the letter attached as Annexure-51.
XVI	The Project authorities 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	EC was granted on 19.05.2009 which was received at our end on 25.05.2009 and the same was published in English Daily "The Times of India" as well as in vernacular language (Hindi) daily "PRABHAT KHABAR" on 30.05.2009 which is within 7 days of receiving the granted EC. After EC dated 06.03.2024 has been published in two newspaper Dainik Bhaskar and Dainik Jagran. Copies of the

Navin Kumar

	be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in/ . The compliance status shall also be uploaded by the project authorities in their website and regularly updated at least once in six months so as to bring the same in the public domain. The data shall also be displayed at the entrance of the project premises and mines office and in corporate office.	news clippings published in Papers are enclosed herewith and marked as Annexure- 52 . The half yearly Compliance status is being updated on Company's website. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports The data is also being displayed at entrance of the office.
3	The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.	Noted and will be complied.
5	The above conditions will be enforced <i>inter-alia</i> , under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. The proponent shall ensure to provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.	Noted and will be complied under the provision of these acts and rules.

Standard EC conditions Stipulated in EC letter dated 06.03.2024

SL No.	Conditions	Compliance/ Status
1. Statutory Compliance		
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	All necessary clearances under the provisions of FC Act, 1980 has been obtained for the 1026.438 Ha of forest land involved vide:

Navin Kumar

		<p>Stage I Clearance obtained vide letter no. "F. No 8-56/2009, dated 11th May 2010",</p> <p>Stage II Clearance obtained vide letter no. "F. No 8-56/2009, dated 17th Sept 2010",</p> <p>Final land release letter received from the State Govt. vide letter no. 3/Vanbhoomi-75/2009-1240 dated 31.03.2011.</p>
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable	Not Applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).	Site specific Wild Life Management Plan has been prepared in line with the Integrated Wildlife Management Plan of North Karanpura Coal block, The site Specific Wild Life Management Plan has been approved by Chief Wildlife Warden of Jharkhand vide letter Ref. no. 33 dated 03.08.2023. Copy of the letter attached as Annexure-53 . The same shall be implemented by Forest Dept., requisite fund of Rs. 125.6732 Crore has been deposited in Ad-Hoc CAMPA fund. Letter of deposition is attached as Annexure-54 .
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee prior to start/commencement of mining operations/production	Consent to Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from Jharkhand State Pollution Control Board (JSPCB) for Pakri Barwadih Coal Mine Project (PBCMP) for capacity of 18 MTPA has been obtained vide letter Ref No. JSPCB/ HO/ RNC/CTO-18605537/2024/379, Dated- 10.03.2024. Copy of the CTO is attached as Annexure-40 .
1.5	The project proponent shall obtain the necessary permission from the Central Ground Water Authority	Necessary approval for abstraction of ground water has been obtained from Central Ground Water Authority vide NOC Ref. no. CGWA/NOC/MIN/ORIG/2023 /17449 Dated 03.01.2023. Copy of NOC attached as Annexure-55 .
1.6	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.	All the hazardous waste generated at NTPC Ltd – PBCMP is being disposed off as per the provisions of HW (MH&TBM) Rule 2016.

Navin Kumar

		Authorization under HW (MH&TBM) Rule 2016 has been obtained from Jharkhand State Pollution Control Board (JSPCB) vide letter ref. no. JSPCB/HO/RNC/HWM-15671118/2023/77 Dated 02.12.2023. Copy of the authorization is attached as Annexure-56.
1.7	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.	Agreed. Permission has been obtained from Central Electricity Authority vide letter ref. no. RIO /ER/ Approval/NTPC/Pakri Barwadih/ 2023-24/320 Dated 04.09.2023. Copy of the approval attached as Annexure-57.
1.8	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.	Agreed
1.9	Validity of Environment Clearance is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein	Noted
1.10	All the conditions stipulated in previous Environment Clearance conditions should be strictly complied within certain timeline.	Agreed

2. Air Quality Monitoring And Mitigation Measure

2.1	Continuous ambient air quality monitoring stations as prescribed in the statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. The new CAAQMS should be installed with expansion.	One no. CAAQMS has been installed in core zone to monitor Ambient Air Quality at Langatu village in Mining lease area in consultation with JSPCB officials.
2.2	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards	Environmental monitoring of ambient air quality is being done through MoEF&CC approved and NABL accredited Lab at

Navin Kumar

	<p>notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.</p>	<p>CPCB prescribed intervals and submitted to Regional office and Jharkhand State Pollution Control Board (JSPCB) along with Half yearly Compliance report.</p> <p>The monitored data for the period of Oct, 23 to March 24 is attached as Annexure-47.</p>
<p>2.3</p>	<p>Transportation of coal, to the extent, if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun/ Fog cannon etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.</p>	<p>To minimize the dust generation, coal transportation is being done by trucks covered with the tarpaulin. Also, to prevent the dust generation due to plying of the trucks regular water sprinkling is being done along the transportation road.</p> <p>Also, the coal has been transported in wet condition from mine end to Banadag Railway Siding. For wetting the coal there are fog canon installed in the crusher area as well as coal stock yard of CHP.</p> <p>Apart from the above the coal is transported through closed belt conveyor passing through 10 nos. of TPs (Transfer Points) all having water injection system which regularly inject the water in the coal. There are two nos. of mist fog canon installed at the TP-10 to wet the coal and minimize the dust generation. Also, green wind screen/net shed has been erected around the coal stock yard near TP-10.</p> <p>Further at the loading point i.e, at Banadag Railway Siding, 10 nos. fixed type of water sprinkler with rain gun has been installed on both side of the Railway Siding. Also, regular water sprinkling is being done through the water taker. Apart from the above to minimize the dust propagation 2 Km wind screen of 20 ft. height have been installed on both side of the Banadag Railway Siding.</p> <p>The ambient air monitored data of the month Nov,23- Dec, 23 indicates that all the parameters are within prescribed limit. Monitoring report attached as Annexure-</p>

Navin Kumar

		58.
2.4	The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.	<p>Agreed</p> <p>The transportation is being done as per EC amendment condition.</p>
2.5	PP to install solar lights along the road used for transportation of coal to avoid the accidents at night and also seek its maintenance.	<p>To avoid the accidents at night total 858 nos. of Street lamp posts have been installed through Department of Energy, Govt of Jharkhand along the transportation road. Apart from that 550 nos. of solar lights have been installed in the rural areas. However, as submitted during the inspection, most of the streetlights along the transport road in forest area, after installation and illumination, were damaged by miscreants/antisocial elements. In this regard it is to inform that NTPC have initiated necessary action for the repair & rectification of the damaged streetlights on the PBCMP dispatch route for their early illumination.</p> <p>Apart from the above for the work of installation of 34 new solar lights/high mast along dispatch road is in tendering process.</p>
2.6	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.	<p>Planned preventive maintenance of all vehicles plying for project is being done periodically. All the vehicles deployed at PBCMP are PUC compliant.</p> <p>PUC certificate of some of the vehicle is enclosed as Annexure – 49.</p>
2.7	Coal stock pile/ crusher /feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet	<p>The coal is being transported in wet condition from mine end to Banadag Railway Siding. For wetting the coal there are fog canons installed in the crusher area as well as coal stock yard of CHP. Photographs attached as Annexure-41.</p> <p>Apart from the above the coal is</p>

Navin Kumar

	operated or fitted with dust extractors.	<p>transported through closed belt conveyor passing through 10 nos. of TPs (Transfer Points) all having water injection system which regularly inject the water in the coal. There are two nos. of mist fog canon installed at the TP-10 to wet the coal and minimize the dust generation. Also, green wind screen/net shed has been erected around the coal stock yard near TP-10.</p> <p>Further at the loading point i.e, at Banadag Railway Siding, 10 nos fixed type of water sprinkler with rain gun has been installed on both side of the Railway Siding. Also, regular water sprinkling is being done through the water taker. Apart from the above to minimize the dust propagation 2 Km wind screen of 20 ft. height have been erected on both side of the Banadag Railway Siding.</p> <p>Drilling machine with inbuilt water injecting system is being utilized for drilling purpose. Also, regular water spraying is being carried out in the drilling area for minimization of the fugitive dust emission.</p>
2.8	Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.	<p>Agreed</p> <p>Coal handling plant is being operated with effective control measures.</p>
2.9	Adequate measures on EMP should be analyzed on annual basis to assess the trend of air pollution data from continuous monitoring station and quarterly report shall be generated and submitted with 6 monthly compliance reports to RO, MoEF&CC.	<p>Continuous Ambient Air Quality Monitoring Station AAQMS has been installed at NTPC – PBCMP site office. Real time data transmission is linked to JSPCB Server.</p> <p>Photograph of the CAAQMS (Continuous Ambient Air Quality Monitoring Station) and report for the period of Oct-23 to March-24 is attached as Annexure-59.</p>
2.10	Effective safeguard measures for prevention of dust generation and subsequent suppression like regular water sprinkling shall be carried out in areas prone to air pollution. The Fugitive dust emission from all sources shall be regularly controlled by installation of	<p>All the possible measures are being taken to control the fugitive dust emission. Dust suppression at mines haul roads & other dust generating areas like truck loading & unloading points is being carried out by engaging 25 nos. mobile water tankers. Details are as under:</p>

Navin Kumar

<p>required equipment's. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB</p>	<p>12KL: 04 Nos. 14KL: 06 Nos. 16KL: 05 Nos. 20KL: 04 Nos. 25KL: 01 No. 28KL: 03 Nos. 70KL: 01 No. 80KL: 01 No.</p> <p>Apart from the above approx. 2 Km fixed water sprinklers are installed at main haul road.</p> <p>It would very much relevant to mentioned here that the 80 KL water tanker is being used in the Pakri Barwadih coal mining project which is unique in India.</p> <p>Further arrangement has been made to bring water from Eastern Quarry by pipeline to Western Quarry for adequate availability of water for dust suppression.</p> <p>Also, water from Eastern Quarry is being used for dust suppression in coal transport road through water tankers and also in the coal stock yard of CHP area.</p> <p>For controlling of the fugitive dust emissions wet drilling with water injection system is being in practice during drilling operations.</p> <p>Further to minimize the dust generation, part of the coal transportation is being done by trucks which is covered with the tarpaulin. Also, to prevent the dust generation due to plying of the trucks regular water sprinkling is being done along the transportation road.</p> <p>Also, the coal has been transported in wet condition from mine end to Banadag Railway Siding. For wetting the coal there are fog canon installed in the crusher area as well as coal stock yard of CHP. Photographs attached as Annexure-41.</p>
---	---

Navin Kumar

		<p>Apart from the above the coal which is transported through conveyor is done in closed belt passes through 10 nos. of TPs (Transfer Points) all the TP have water injection system which regularly inject the water in the coal. There are two nos. of mist fog canon have been installed at the TP-10 to wet the coal or minimize the dust generation. Also, green wind screen/net shed has been erected around the coal stock yard.</p> <p>Further at the loading point i.e, at Banadag Railway Siding, Fixed type of water sprinkler with rain gun has been installed on both side of the Railway Siding. Also, regular water sprinkling is being done through the water taker. Apart from the above to minimize the dust propagation wind screen of 20 ft. height have been erected on both side of the Banadag Railway Siding.</p>
2.11	Adequate number of Fog canon (mist sprayer) shall be installed to reduce the impact of air pollution at dust generating sources with time bound action plan.	<p>For wetting the coal there are fog canons installed in the crusher area as well as coal stock yard of CHP.</p> <p>Also, two nos. of mist fog canon have been installed at the TP-10 to wet the coal or minimize the dust generation.</p> <p>Apart from the above, 10 nos fixed type of water sprinkler has been installed on both side of Banadag Railway siding i.e, along Northern and Southern side of railway siding.</p>
2.12	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.	Boundary wall has been constructed on both side of Banadag Railway Siding along with permanent 2 Km wind screen of height 20 ft. i.e., North & South Side.
2.13	Post environmental closure third party monitoring by reputed institued in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to IRO, MoEF&CC for compliance. The data used for analysis	Agreed.


 नवा- कुमार / NAVIN KUMAR
 COAL MINING PROJECTS
 HAZARIBAG

	shall be obtained from continuous AQMS, site specific water regime. Also, third party shall analyses the implementation of river diversion, meeting to the requirement of project report.	
2.14	Comparison of average monthly temperature of pre and post mine operation after obtaining EC shall be elaborated for post three years and a record to be maintain at regular interval.	Agreed. Meteorological station has been installed at project site for monitoring the temperature, rainfall, wind speed and direction. Photographs is attached as Annexure-60 .
3. Water Quality Monitoring And Mitigation Measures		
3.1	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.	No effluent is being discharged outside from mine. All the effluent generated are being reused in various mining activity such as Water sprinkling, Vehicle Washing etc. after treatment.
3.2	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.	The monitoring data is being uploaded in company site https://ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports However, the website of NML is under construction. After launching of website same will be uploaded on NML company site.
3.3	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.	Monitoring of groundwater levels are being carried out by manual monitoring at 10 locations around the mining lease area. Apart from manual monitoring, automatic water level recorders (Piezometers) have been installed at two locations viz.: Langatu site office, Sikri site office. The data so generated is being submitted to Ministry of Environment & Forests and Climate Change & Central Pollution Control Board. Last six months water level data are enclosed as Annexure – 28 . Water quality report of month November-2023 & January-2024 is attached as Annexure – 29 .
3.4	Monitoring of water quality upstream	Ground water & surface water quality

Navin Kumar
नवा - कुमार / NAVIN KUMAR
आपातकालीन सहायता (EMERGENCY NUMBER)
आपातकालीन सहायता / NTPC Limited
आपातकालीन सहायता (COAL MINING PROJECTS)
हजारीबाग / Hazaribag

	<p>and downstream of river including ponds, lakes, tanks shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.</p>	<p>monitoring and analysis through NABL and MoEF&CC accredited Laboratory and monitoring data is being submitted with six monthly compliance report.</p>
<p>3.5</p>	<p>Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.</p>	<p>No ground water is being used for mining activity. Ground Water is being used to fulfil domestic requirement.</p> <p>Adequate conservation measures are being taken in Pakri Barwadih Coal Mining Project for rainwater harvesting. The Roof top rainwater structure has been constructed and also rejuvenated the existing ponds in nearby villages for improving the ground water of the area. Approximately 1.49 lakh m³/year of ground water is being recharged at Pakri Barwadih Coal Mining Project.</p> <p>Apart from the above Approx. 23 lakh m³ of rainwater have been stored in the East quarry for use in dust suppression, plantation activity and the same water is used for other miscellaneous use also. In addition to that, 12 Nos. of Check dams have been constructed in Pakwa and Khora Nala to meet water requirements and to augment the groundwater of the area around PBCMP. The estimated cumulative storage capacity of the Check dams is 16.18 lakh cum. And estimated groundwater recharge potential of approx. 340.52 lakh m³/year through the Check Dams.</p>
<p>3.6</p>	<p>Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of</p>	<p>OB dump is in active condition, i.e. presently excavated OBs are being dumped over the OB dump and hence, all the protection measures for soil erosion from OB dump are being taken.</p> <p>To prevent erosion from dumps, 2400-meter toe wall followed by garland drain along the embankment, 735-meter toe wall followed by garland drain along the haul road facing Khora nala, 780-meter toe wall</p>

Navin Kumar

	<p>silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.</p>	<p>on the toe of the Dump 'C', 810-meter toe wall along the Dump 'A' and 560-meter toe wall followed by garland drain along the Top Soil dump have been constructed.</p> <p>The garland drains constructed all around the dumps are ultimately connected to the settling pit where the sediments are settled and allow the water to pass through it. Further, 4 Nos. of rock fill Check dam are also constructed to avoid any siltation in the nearby area.</p> <p>Apart from the above Catch drains also provided at workshop, offices etc. to direct the rain water to siltation pond at sump area to arrest silts and further to direct water to main sump.</p>
3.7	<p>Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).</p>	<p>Adequate conservation measures are being taken in Pakri Barwadih Coal Mining Project for rainwater harvesting. The Roof top rainwater structure has been constructed and also rejuvenated the existing ponds in nearby villages for improving the ground water of the area. Approximately 1.49 lakh m³/year of ground water is being recharged at Pakri Barwadih Coal Mining Project.</p> <p>Apart from the above Approx. 23 lakh m³ of rainwater have been stored in the East quarry for use in dust suppression, plantation activity and the same water is used for other miscellaneous use also. In addition to that, 12 Nos. of Check dams have been constructed in Pakwa and Khora Nala to meet water requirements and to augment the groundwater of the area around PBCMP. The estimated cumulative storage capacity of the Check dams is 16.18 lakh cum. And estimated groundwater recharge potential of approx. 340.52 lakh m³/year through the Check Dams.</p>
3.8	<p>Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards</p>	<p>For treatment of waste water generated at HEMM Washing center, an Electro Mechanical ETP have been installed at Mine workshop of capacity 200 KLD.</p>

Navin Kumar
नवीन कुमार / NAVIN KUMAR
आपातकाल (मरदाना प्रहार) (OC/MLE/NT/18MTPA)
एनटीपीसी लिमिटेड / NTPC Limited
आंध्र प्रदेश खनन विभाग (1) COAL MINING PROJECTS
हजारीबाग / Hazaribag

	prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.	<p>Sewage Treatment Plant (STP) of 1.5 MLD capacities has been installed in R&R colony.</p> <p>Further, STP of 25 KLD of MBBR technology is installed at site office for treatment of the sewage generated at Offices and 300 KLD capacities STP of MBBR technology is also installed at MDO Colony, Sikri.</p>
3.9	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.	No water is being discharged outside the mine.
3.10	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.	<p>The CWPRS was involved in study and design for realignment of the nallas.</p> <p>Also, necessary permission/NOC has been obtained from State Water Resource Dept, GoJh vide their ltr. Ref. no. 2/PMC/ND-171/2012/224 dated 19.03.2013.</p> <p>Based on the above study report of CWPRS and NOC/permission from water resource Dept, GoJH, realignment of Dumuhani nala has been done.</p>
3.11	The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.	Agreed
3.12	Quality of polluted water generated from the operations which include COD	After treatment of effluent water Monitoring is being done through NABL

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 जल संसाधन (परिचालन विभाग) / JAL SANSADHAN (PARICHALAN VIBHAG)
 पर्यावरणीय विभाग / NTPC Limited
 खनन क्षेत्र (परिचालन) / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

	and acid mine drainage and metal contamination shall be monitored along with TDS, DO, TSS. The monitored data shall be uploaded on the website of the company as well as displayed at the site in public domain.	<p>accredited Lab. Data of the same is being regularly submit to the Board and uploaded on the website of the Company.</p> <p>The monitoring data is being uploaded in company site https://ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports</p> <p>However, the website of NML is under construction. After launching of website same will be uploaded on NML company site.</p>
3.13	Domestic water shall be providing to the residents/villages which are coming under the zone of influence of the project due to ground water extraction and mining operation by installing adequate number of RO plants with proper supply line and Taps within 2 years	<p>Regular monitoring of the ground water table in the surrounding villages are being done to determine the any adverse impact on to the ground water regime.</p> <p>Further, NTPC PBCMP under its social obligation, have installed 22 Nos. of hand pumps 10 nos. of Tube wells in nearby villages in FY 2023-24 and also, to meet the further water requirement of the nearby villagers adequate mobile tankers are deployed during summer season.</p> <p>Moreover, fund has been deposited to District Administration for construction of 27 Hand pumps & 50 Bore wells.</p>
3.14	No obsolete technologies for sewage treatment shall be implemented. Construction of Sewage Treatment Plant with latest technology should be completed within 2 years and treated water shall be reused for plantation. CTE and CTO of STP shall be obtained as per the norms.	<p>Sewage Treatment Plant (STP) of 1.5 MLD capacities has been installed in R&R colony.</p> <p>STP of 25 KLD of MBBR technology is installed at site office for treatment of the sewage generated at Langatu Office and 300 KLD capacity STP of MBBR technology is also installed at MDO Colony, Sikri.</p>
4. Noise And Vibration Monitoring And Prevention		
4.1	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate	<p>Effective measures are being taken to minimize the noise level below 85 dB (A) in the work zone.</p> <p>All the equipments/machines are provided with acoustic enclosure cabins.</p> <p>Workers engaged in blasting and drilling operations, operation of HEMM, are being provided with personal protective</p>

Navin Kumar

	awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.	equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for the workers are being conducted regularly.
4.2	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.	Blasting patterns have been designed based on the study conducted by CIMFR Dhanbad. As suggested by CIMFR, Dhanbad, controlled blasting technique with non-electric delay detonators is being practiced to minimize ground vibration and to avoid fly rocks & boulders.
4.3	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.	Noise level survey has been carried out as per the CMR 2017 and prescribed guidelines to assess noise exposure of the workmen at different places of mine on monthly basis. Noise monitored data is enclosed as Annexure-48 .
5. Mining Plan		
5.1	5- Star Rating is mandatory to obtained certification as per guidelines of Ministry of Coal.	Noted.
5.2	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.	Noted. Mining is being carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under.
5.3	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).	Mining is being carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
5.4	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.	Mining is being carried out in forest area after obtaining following clearance under the provisions of FC Act, 1980: • Stage I Clearance obtained vide letter no. "F. No 8-56/2009, dated 11 th May 2010", • Stage II Clearance obtained vide letter no. "F. No 8-56/2009, dated 17 th Sept 2010", • Final land release letter received from the State Govt. vide letter no. 3/Vanbhoomi-75/2009-1240 dated

Navin Kumar

		31.03.2011.
5.5	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	Agreed. The work of "feasibility study for installation of solar plant on OB Dump" has been awarded to M/s CIMFER vide PO No. 5500041554-131-1040 Dated 27.10.2022. The Study is under process. Copy of work order is attached as Annexure-61 .
5.6	PP shall adopt mining method by preferably using surface miners for the project and silo loading through in-pit conveyor should be adopted	The mining is being done as per approved mine plan and mine Closure plan. The surface miner trial is going on. Silo Loading is under construction at the railway siding.
5.7	Transportation of coal till Railway Siding shall be developed to avoid transportation through Road.	NTPC has already commissioned 13 Km of the Conveyor Belt Stream-A on 28.02.2022 and Stream-B on 30.11.2022. Part of the Coal is being transported through the same. The connecting 1.2 Km Silo Rapid Loading System with Rail Infra are under construction is likely to be completed by Dec 2024. Part of the coal transportation is being done by trucks which is covered with the tarpaulin. Also, to prevent the dust generation due to plying of the trucks regular water sprinkling is being done along the transportation road.

6. Land Recalvation

6.1	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).	The LULC study is being carried out in every three years interval. The last study was conducted in the year 2019-22 and report of the same was submitted to the MoEF & CC with HYMR (Oct. 2022 to March 2023). The next study shall be conducted for the period 2022-25.
6.2	The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Postmining land be rendered usable for agricultural/	Agreed.

Navin Kumar

	forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.	
6.3	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.	Agreed. The mining is being carried out as per approved Mine Plan and Mine Closure Plan. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
6.4	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.	Similar study has been awarded to M/s CIMFER for another NTPC's project (Dulanga Coal Mine Project, Odisha). After completion of study and based on the recommendations same shall be implemented at Pakri Barwadih Coal Mining Project. Copy of the work order is attached as Annexure-20 .
6.5	Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and	Top soil is being stacked in available suitable site. Same is being used for spreading over the completed portion of OB Dump for development of the green belt. To prevent erosion from top soil dumps, coir mats have been laid on the slopes. Further, to avoid soil erosion mixed grass seed spreading and root shoots of Vertiver grass and lemon grass has been sowed on top soil dump. Apart from this 450-meter toe wall along with garland drain and settling ponds have been constructed along the toe of Top Soil

Navin Kumar
नवीन कुमार / NAVIN KUMAR
आपातकालीन प्रतिकार (NTPC) लिमिटेड
आपातकालीन प्रतिकार (NTPC) लिमिटेड
आपातकालीन प्रतिकार (NTPC) लिमिटेड
हजारीबाग / Hazaribag

	management of rehabilitated areas shall continue until the vegetation becomes selfsustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.	dump near Itiz village. The garland drains are being repaired regularly before monsoon every year.
6.6	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.	Grazing land shall be developed as per approved mining and mining closure plan and its revision.
6.7	Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust.	<p>Top soil is being stacked in available suitable site. Same is being used for spreading over the completed portion of OB Dump for development of the green belt.</p> <p>To prevent erosion from top soil dumps, coir mats have been laid on the slopes. Further, to avoid soil erosion mixed grass seed spreading and root shoots of Vertiver grass and lemon grass has been sowed on top soil dump.</p>
6.8	Progressive backfilling of mine and progressive reclamation of OB dump shall be done.	<p>Agreed.</p> <p>Till March 2024 total area of approx. 127.75 Ha was being backfilled. However internal dumping is in active stage and Mining / reclamation shall be implemented at the cost of project.</p> <p>More than 1.5 lakhs of tree sapling have been planted in all parts of closed part of the OB Dump-C as well as more than 45 thousand plant saplings have been planted along the slope of the Dump-A.</p> <p>Further, more than 20 thousand plant saplings have been planted on OB dump-D and vacant part of the eastern quarry.</p>
6.9	Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles	Approx. 1.5 lakh tree sapling has been planted over the completed portion of OB Dumps. Apart from the above mixed grass seed, Nitrogen fixing seed and vertiver

Navin Kumar

		grass have been sowed over the OB Dumps.
6.10	PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads/ manufacture of artificial sand, aggregates/ use for farmers etc.)	Agreed.
6.11	All approach roads to mine and all other roads which are in regular use should be black topped. The maintenance of road shall be done by PP in collaboration with state government	The approach roads to mine have been black topped and maintenance of the same are being done by NTPC.
6.12	Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC	Agreed.

7. Green Belt

7.1	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.	Site specific Wild Life Management Plan has been prepared in line with the Integrated Wildlife Management Plan of North Karanpura Coal block, The site Specific Wild Life Management Plan has been approved by Chief Wildlife Warden of Jharkhand vide letter Ref. no. 33 dated 03.08.2023. Copy of the letter attached as Annexure-53 . The same shall be implemented by Forest Dept., requisite fund of Rs. 125.6732 Crore has been submitted to Ad-Hoc CAMPA fund. Letter of deposition is attached as Annexure-54 .
-----	---	---

Navin Kumar

नवीन कुमार / NAVIN KUMAR

आवरण संरक्षण (संरक्षण विभाग) / DGM (ENVT. MGMT)

पर्यावरणीय विभाग / NTPC Compliance of Condition stipulated in Environment Clearance granted to Pakri Barwadih Coal Mining Project

पैकरी बारवाडीह कोयला खनन परियोजना / COAL MINING PROJECTS

हजारीबाग / Hazaribag

7.2	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads. And Plantation should also be carried out in nearby area with consent of forest department and gram panchayat within 10 km radius with its proper maintenance	6 Km all along within the mining lease 7.5 m wide safety zone has been developed with plantation of approx. 35000 nos. of mix of native plant species. The 3-tier plantation green belt comprising a mix of native species (5930 nos.) is being developed along the 7 Km coal transportation roads along the northern boundary of the mining lease. NTPC PBCMP has also distributed 10172 plants in nearby villages and agreed for further plantation with consent of Forest Dept. and Gram Panchayat.
-----	---	--

8. Public Hearing And Human Health Issues

8.1	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six monthly basis.	Adequate illumination is being ensured in all mine locations (as per DGMS standards) and monitored monthly. Monitoring report is attached as Annexure-62 .
8.2	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.	Regular periodic medical check-up of all mine workers as per DGMS guidelines is being carried out at project hospital as reported. <i>"Occupational health study in Pakri Barwadih Coal Project with special reference to respiratory health and hearing impairment assessment"</i> was conducted through Regional Occupational Health Centre (Eastern), Kolkata & National Institute Of Occupational Health, Ahmedabad. Report of the same already submitted in last compliance reporting. As of now no case of occupational disease and hearing impairment has been reported.
8.3	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.	Personnel (including outsourced employees) working in core zone are wearing protective respiratory devices and are being provided with adequate training and information on safety and health aspects.
8.4	Implementation of the time bound action plan on the issues raised during	Commitment made during Public Hearing is being ensured in time bound manner.

Navin Kumar
नवीन कुमार / NAVIN KUMAR
आपातकालीन प्रतिकार (अपेक्षा) डी.जी.एम.ए.सी. (एन.टी.पी.सी.)
प्रशासकीय विभाग / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

	the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the time bound action plan submitted with budgetary provisions during the public hearing. Land Oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.	Rehabilitation Action Plan has been approved vide Govt. of Jharkhand (GoJh) Gazette Notification vide letter No. 116 /R dated 27.02.2013 which is in line with the Jharkhand R&R policy.
8.5	The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.	Agreed.
8.6	PP to conduct need-based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.	Pre-mining Socio economic survey has been undertaken through IIT Kharagpur and Abhigyan Samiti For monitoring, socio economic status a contract for conducting Social Impact Assessment in the project affected villages of PBCMP has been awarded to M/s. Deloitte Touche Tohmatsu India LLP, Gurgaon dated 16.09.2020. The study report has been submitted in previous compliance report.
8.7	PP should conduct epidemiology study to (analysis of the distribution, patterns and determinants of health and disease conditions in defined populations).	Agreed.
8.8	Permanent Health care facilities of Hospital should be established within 5 km of project boundary for the local people	Medical dispensary has been established at Langatu site office equipped with latest medical equipment and technologies. Full time medical teams consisting of MBBS Medical Officers, Pharmacists, Compounder cum Dressers, Lab Technicians, Female Nurses and EDP operators are serving the villagers dedicatedly. The dispensary is providing services like general checkup, distribution of medicine, all for free to the villagers and employees.
8.9	PP must ensure an emergency action	Noted. We shall always abide the said

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 ज्य. प्रमुख (पर्यावरण प्रबंधन) / JGM (ENVT. MGMT.)
 एन टी सी लिमिटेड / NTPC LIMITED
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

	plan during pandemic in order to provide assistance to the nearby villages located within the 10 km radius buffer zone (If required)	condition.
8.10	PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year	600 nos. of solar lights have been installed in the rural areas.
8.11	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10 km radius	As submitted at point no. 8.10.
8.12	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours	Being complied. All possible measure are being carried out to make the illumination and noise level within prescribed limit.
8.13	Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.	The requirement of water at R&R Colony has been fulfilled through overhead tanks constructed for the purpose which is filled with ground water. Further, more than 4000 nos. of fruit bearing plants (such as mango, Guava, Mulberry, Lychee, Jackfruit etc.) have been planted in R&R colony which is being maintained by NTPC Ltd. Copy of the work order awarded for plantation and maintenance of plants in R&R colony is attached as Annexure-63 . Apart from the above other social amenities such as School, Mandirs, Health centers, etc. have also been provided at established R&R colony, Dhenga, Barkagaon.
8.14	Persons of nearby villages shall be given training on livelihood and skill	Through ITI Dhenga (Being run by NTPC) capacity building of youths of the project

Navin Kumar

	development to make them employable with its proper records.	area is being carried out by PBCMP. Other training programs for women empowerment and providing livelihood options is also being organised by PBCMP. Till date 461 nos. of student got employment after passing from ITI Dhenga.
8.15	Compensation of the land acquired for the project shall be settled as per the R&R Policy within fixed timeline	Compensation of the land acquired for the project is being settled as per R&R package approved vide letter No. 116 /R dated 27.02.2013 by State Govt .

9. Corporate Environment Responsibility

9.1	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.	The Environment policy has been approved by the Board of Directors and is being implemented at site.
9.2	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.	At the corporate office, a separate Environmental Management Cell is already functioning under supervision of senior executive who is reporting to Head of the Company to look after the implementation of the various pollution control measures and other Environment Management System requirements. At local level, dedicated department for Environment Management is also functional with qualified Environmental Engineer. Head of the Department directly reports to Head of the Project. The working level staffs in Environment Cell have been deployed through MDO. The organization chart of the same is enclosed as Annexure – 50 .
9.3	Action plan for implementing EMP and environmental conditions along with	The requisite funds for environmental mitigation measures have been included in

Navin Kumar
नवीन कुमार / NAVIN KUMAR
आपातक (सर्वोच्च स्तर) - 020-2610000-00000
एनटीसी (एनटीसी) NTPC Limited
खनन एवं खनन (COAL MINING PROJECTS)
हजारीबाग / Hazaribag

	<p>responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.</p>	<p>the project cost.</p> <p>An amount of Rs. 6.152 Crores have been spent during Oct.-2023 to March-2024 for the Environment Management Cost.</p> <p>Till March 2024 we have spent an amount Rs. 83.395 Crores (Rs. 71.778 Crores – Audited and Rs. 5.465 Crores - Unaudited) for the Environment Management Cost.</p> <p>Escrow account has been opened and amount is being deposited annually. As per direction received from CCO an amount of Rs. 16.2607 Crores have been deposited in the FY 2023-24 as 8th (FY 2023-24) & 9th (FY 2024-25) year Mine Closure cost.</p> <p>Till date Rs. 62.45 Crore have been deposited in Escrow account as part of the Mine Closure cost. Detail of amounts deposited in ESCROW is enclosed as Annexure- 39.</p>
9.4	<p>Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.</p>	<p>Self-environmental audit (internal audit) and third-party environmental audit (ISO) is being carried out annually and in three years respectively.</p>
9.5	<p>PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground. A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non-compliance or infringement should be reported to the concerned authority</p>	<p>Presently, Monitoring and analysis is being done through MoEF&CC and NABL accredited lab in consultation with the State Pollution Control Board.</p> <p>However, Environmental laboratory has already been setup at site with various equipments. The dedicated team has looking after the monitoring work.</p>
<p>10. Miscellaneous</p>		
10.1	<p>The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently</p>	<p>EC (18 MTPA) was published in "Danik Jagran and Danik Bhaskar" in hindi and english.</p> <p>Copies of the news clippings published in</p>

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 Compliance Officer (Environment) / NTPC Mining Limited
 Pakri Barwadih Coal Mining Project
 Hazaribag / Hazaribag

	advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Papers are enclosed herewith and marked as Annexure- 52 . Copy of the EC letter has been sent to the local administrative offices and uploaded on the company's website www.ntpc.co.in .
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Copy of the EC letter was sent to office of District collector, Hazaribagh, JSPCB Regional office Hazaribagh, JSPCB Ranchi, District Industry Center, Hazaribagh, Municipal Office, Hazaribagh, Concerned COs. Copy of the receipt of EC from different Panchayats is attached as Annexure-51 .
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	The half yearly Compliance status is being updated on Company's website. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports The data is also being displayed at entrance of the office. However, the website of NML is under construction. After launching of website same will be uploaded on NML company site.
10.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	The pollutants level is being monitored and displayed at Mine area Office area and Banadag Railway Siding. Photographs attached as Annexure-64 .
10.5	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website.	The six-monthly Compliance status is being updated on Company's website. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports However, the website of NML is under construction. After launching of website same will be uploaded on NML company site.
10.6	The project proponent shall submit the environmental statement for each	Agreed. The last environmental statement had

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जिला प्रमुख (पर्यावरण विभाग) - JSPCB - राँची
एनटीपीसी लिमिटेड / NTPC Limited
खनन विभाग (पर्यावरण) / COAL MINING PROJECTS
हजारिबाग / Hazaribag

	financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	been submitted to Jharkhand State Pollution Control Board vide our ltr. Ref. 1040/ PBCMP/EMG/2023/F-38/183, dated 08.09.2023 through mail dated 08.09.2023. Copy of the mail attached as Annexure – 65.
10.7	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.	Agreed.
10.8	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Agreed.
10.9	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Agreed.
10.10	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.	Noted. Before any expansion or modification prior approval of the Ministry of Environment, Forests and Climate Change will be obtained.
10.11	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted and Agreed.
10.12	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted and Agreed.
10.13	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted and Agreed.
10.14	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Noted and Agreed.

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 ॐ नमो भगवते वासुदेवाय
 (Pakri Barwadih Coal Mining Project) NTPC Mining Limited
 नमो भगवते वासुदेवाय COAL MINING PROJECTS
 हजारीबाग / Hazaribag

10.15	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Noted and Agreed.
-------	---	-------------------

Navin Kumar
नवीन कुमार / NAVIN KUMAR
ज्य. प्रो. (अवर) / JGM (ENV. NGMT.)
एन टी सी लिमिटेड / NTPC Limited
खनन एवं खनन प्रोजेक्ट्स / COAL MINING PROJECTS
हजारीबाग / Hazaribag

उपायुक्त का कार्यालय, हजारीबाग

(जिला योजना)

e-Mail:- dpohazaribagh@gmail.com

पत्रांक... 1.7.0/जि०यो०

प्रेषक,

उपायुक्त,
हजारीबाग।

सेवा में,

महाप्रबंधक
एन०टी०पी०सी०, पकरी-बरवाहीह
हजारीबाग।

हजारीबाग, दिनांक... 1.6.10/2023

विषय :-

सी०एस०आर० मद के तहत हजारीबाग जिला के बड़कागाँव स्थित मेगालिथ पार्क के विकास एवं पथ निर्माण हेतु राशि उपलब्ध कराने के संबंध में।

प्रसंग:-

आपका पत्रांक- NTPC/PBCMP/R&R-CD/2023 Dated 10-10-2023

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के द्वारा सी०एस०आर० मद के तहत हजारीबाग जिला के बड़कागाँव स्थित मेगालिथ पार्क के विकास एवं पथ निर्माण हेतु 06 किस्तों में 3,03,92,447/- रुपये राशि उपलब्ध कराने पर सहमति व्यक्त की गई है एवं मांग पत्र उपलब्ध कराने हेतु अनुरोध किया गया है।

उक्त के आलोक में अनुरोध है कि जिला डिपोजिट में उक्त राशि का प्रथम किस्त 50.00 लाख रुपये निम्नांकित बैंक विवरणी के अनुसार उपलब्ध कराने का कष्ट किया जाय। विवरणी निम्नवत है :-

बैंक का नाम:- भारतीय स्टेट बैंक, मुख्य शाखा, हजारीबाग
खाता संख्या-11071859457
IFSC Code-SBIN0000090

विश्वासभाजन

उपायुक्त
हजारीबाग।

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन०टी०पी०सी० (मैनेजिंग डायरेक्टर) / DGM (ENR, MGMT.)
एन०टी०पी०सी० लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Date: 28/10/2023

Ref: NTPC/PBCMP/R&R-CD/2023

To,
The **Dy. Commissioner**,
District Hazaribag.

Sub: Deposit of funds for development of "Megalith Park", at Barkagaon, Hazaribagh: reg

Respected Madam,

This has reference to the letter No.476 dated 16.10.2023, of the Deputy Commissioner, Hazaribagh, wherein the District Administration had requested for deposit of fund for Rs.3,03,92,447/- (Rs. 3.03 Crore approx.) in six (06) instalments for development of "Megalith Park", at Barkagaon, as per the estimated expenditure, under the Community Development activities of NTPC Pakri Barwadih.

In this connection, NTPC, Pakri Barwadih is depositing fund of Rs. 50.00 Lakhs (Fifty lakhs) as 1st Instalment with the 'The Deputy Commissioner, (CSR Fund) Hazaribagh' vide Cheque No. 090436 dated 20.10.2023 to start the development work of "Megalith Park", at Barkagaon.

Original Cheque is attached herewith. Subsequent instalments would be released on receipt of Utilization Certificate of at least 80% amount of the previous instalment.

As part of the process, you are requested to direct the concerned Govt. Deptt./ Executives to kindly provide the Utilization Certificate/ Good quality photographs on a periodic basis. It is humbly submitted that the display of NTPC logo, as replicated below:



and citation '**Courtesy NTPC PBCMP**' at appropriate locations of the project work, may also kindly be advised to concerned Govt. agency, so that the efforts of NTPC in augmenting the Govt. Schemes towards socio-economic development of the area also gets due recognition.

Thanking you,

Yours Sincerely,

(Neeraj Jalota)

HOP, PB & PB-NW Coal Mining Project

Encl.: As above

CC:The District Engineer, Hazaribagh: For kind information please.

The District Planning Officer, Hazaribagh: For kind information please.

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग – 825311

नव कुमार / NAVIN KUMAR
सहायक (प्रबंधन प्रणाली) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Cheque handed over to Dy. Commissioner on 01.11.2023 at office. NTPC
01.11.2023
Pakri Barwadih
NTPC



भारतीय स्टेट बैंक
State Bank Of India

1002127 DORANDA BRANCH
P.O. - DORANDA, DIST. RANCHI,
STATE - JHARKHAND-834002
Tel: 615-2480846 IFS CODE : SBIN0000212

20102023
D O M Y Y Y Y

PAYEE A/C ONLY

PAY *DEPUTY COMMISSIONER CESR FUND* को या उनके आदेश पर OR ORDER

रुपये RUPEES *Fifty lakh only* अथवा करे ₹ *50,00,000=00*

For NTPC LIMITED

बैंक अ/c NO. **35110379118**

VALID UP TO ₹ 15 CRORES AT NON-HOME BRANCH FOR NON-CASH TRANSACTION ONLY
81197301153

CURRENT A/C
PREFIX:
1516200000

NTPC
Signature

AUTHORISED SIGNATORY AUTHORIZED SIGNATORY
Please sign above

MULTI-CITY CHEQUE Payable at Par at All Branches of SBI

⑈090436⑈ 834002003⑈ 000904⑈ 29



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Ref: 1040/PBCMP/EMG/2023/F-47/ 2.08

Date: 17.11.2023

To,
The Deputy Director General of Forests (C),
MoEF&CC, Integrated Regional Office,
2nd Floor, Headquarter Jharkhand State Housing Board
Harmu Chowk, Ranchi (Jharkhand) - 834002.

Dear Sir,

Sub: Six Monthly Progress Report on compliance of conditions stipulated in the Environmental Clearance by MoEF & CC and Monitoring report for the period April 2023 to September 2023 for NTPC Ltd - Pakri Barwadih Coal Mining Project (15MTPA): Eeg.

Ref1: EC Ltr No. J-11015/692/2007-IA-II(M) Date 19th May 2009.
Ref2: EC Amendment Ltr No J-11015/692/2007-IA-II(M) Date 29.06.2016
Ref3: EC Amendment Ltr No J-11015/692/2007-IA-II(M) Date 07.12.2017
Ref4: EC Amendment Ltr No J-11015/692/2007-IA-II(M) Date 14.08.2018
Ref5: EC Amendment Ltr No J-11015/692/2007-IA-II(M) Date 10.11.2020
Ref6: EC Amendment Ltr No J-11015/692/2007-IA-II(M) Date 16.08.2023
Ref7: EC Amendment Ltr No J-11015/692/2007-IA-II(M) Date 09.11.2023

With reference to above subject please find enclosed herewith the six-monthly status report on compliance of various conditions in the Environmental Clearance accorded to NTPC Ltd - Pakri Barwadih Coal Mining Project (15MTPA) for the period April 2023 to September 2023. The monitoring reports on fugitive emission, effluent quality, ambient air quality, ground and surface water quality, noise measured data etc. are also enclosed with the report.

This is for your kind information please

Thanking you.

Yours Faithfully,

Navin Kumar
[NAVIN KUMAR]
ज्येष्ठ अधिकारी (पर्यावरण प्रदूषण) / JGM (ENVY MGMT.)
(एनटीपीसी लिमिटेड) / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Encl: A/a

Copy to:

1. Sc. E & Regional Director, Kolkata, Central Pollution Control Board, Southern Conclate, 502, 5th & 6th Floors, Rajdhanga Main road, Kolkata-700107 (W.B), e-mail: mkbiswas.cpcb@nic.in.
2. Regional Officer, Jharkhand State Pollution Control Board, PTC Chowk, Hazaribagh, Jharkhand.

Navin Kumar

नवा- कुमार / NAVIN KUMAR mail-jspcb_hazaribagh@rediffmail.com

ज्येष्ठ अधिकारी (पर्यावरण प्रदूषण) / JGM (ENVY MGMT.)
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

एनटीपीसी लिमिटेड / NTPC Limited mail-ranchijspcb@gmail.com

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारीबाग / Hazaribag

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311

पंजीकृत कार्यालय : एनटीपीसी भवन, स्कोप कॉम्प्लेक्स, 7, इन्स्टीट्यूशनल एरिया, लोदी रोड, नई दिल्ली - 110003. टेलीफोन नं./Tel: 011-24397333, फैक्स नं./Fax: 01124369018
Registered Office : NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodi Road, New Delhi - 110003. E-mail : ntpc@ntpc.co.in, Website : www.ntpc.co.in



navneet kumar <nk@thrivenisainik.com>

Six Monthly Progress Report on compliance of conditions stipulated in the Environmental Clearance by MoEF & CC and Monitoring report for the period April 2023 to September 2023 for NTPC Ltd - Pakri Barwadih Coal Mining Project (15MTPA): Reg.

1 message

EMG_PBCMP <emg_pbcmp@ntpc.co.in>

Fri, Nov 17, 2023 at 1:54 PM

To: ROR MoEFCC <ro.ranchi-mef@gov.in>

Cc: TSPAKRI <tspakri@ntpc.co.in>, Upendra Kumar Pandit <UPENDRAKUMARPANDIT@ntpc.co.in>, NAVIN <NAVINKUMAR03@ntpc.co.in>, ARVIND KUMAR SINGH <ARVINDKRSINGH@ntpc.co.in>, Birendra Kumar <BIRENDRAKUMAR01@ntpc.co.in>, "chandrasekhar51@ntpc.co.in" <chandrasekhar51@ntpc.co.in>, "jspcb_hazaribagh@rediffmail.com" <jspcb_hazaribagh@rediffmail.com>, "ranchijspcb@gmail.com" <ranchijspcb@gmail.com>, "mkbiswas.cpcb@nic.in" <mkbiswas.cpcb@nic.in>

Dear Sir,

With reference to above subject please find enclosed herewith the six-monthly status report on compliance of various conditions in the Environmental Clearance accorded to **NTPC Ltd - Pakri Barwadih Coal Mining Project (15MTPA)** for the period **April 2023 to September 2023**.

This is for your kind information please.

Thanking you.

सादर / Warm regards,

नवीन कुमार / Navin Kumar
DGM (Mining), Environment Mgmt.
एनटीपीसी लिमिटेड / NTPC Ltd.
Pakri Barwadih Coal Mining Project,
Sikri Site Office, Barkagaon,
Hazaribagh 825301 (Jharkhand)
मोबाइल / Mobile 9470197223 / 7004012892

DISCLAIMER: This Email contains PRIVILEGED AND CONFIDENTIAL INFORMATION intended solely for the use of the addressee(s). If you are not the intended recipient do not copy, disclose or distribute this mail. Further, remove it from your system & please notify to administrator at m365support@ntpc.co.in. This mail may contain viruses, NTPC Ltd. has taken every reasonable precaution to minimize this risk, but is not liable for any damage you may sustain as a result of any virus in this Email. You should carry out your own virus checks before opening the Email or attachment. NTPC Ltd reserves the right to monitor and review the content of all messages sent to or from this Email address. Messages sent to or from this Email address may be stored on the NTPC Ltd. Email system.



Navin Kumar
नवीन कुमार / NAVIN KUMAR
का. माध्यम (पर्यावरण प्रबन्धन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribagh

 EC Compliance.pdf
31020K

Photographs of OB catch drains, siltation pond along the OB & Top Soil dump



Navin Kumar
नवा- कुमार / NAVIN KUMAR
एन एम डीसी (प्रायोक्ता प्रभु) कोयला खनन प्रकल्प
एनटीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Garland Drain & Catch Drain along the Dump



Navin K
नवा कुमार / NAVIN KUMAR
आ. महाप्र. (नवीन) (NMP) / DGM (ENVY. BOND)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Garland Drain & Catch Drain along Top Soil & Embankment



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन सीएल (सर्वोच्च दर्जा) / OCM (ENFT, MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Desiltation of Settling Pit



Settling Pit connected to Catch Drains

Nashin Kumar

नवा- कुमार / NASHIN KUMAR
एन एचएसएल (एनएसएल प्रोजेक्ट) / ENVT. MGMT.
इन्फोमिस्ट सिस्टिम्स / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

PHOTOGRAPH OF WATER SPRINKLING THROUGH WATER TANK



Navin Kumar
नवा-कुमार / NAVIN KUMAR
एन सीएल (एनवीएल प्रॉजेंट) / OGM (ENVY, MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एच सी ७७ (पर्यावरण प्रबंधन) / OGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Photographs Showing Conveyor System



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सी ई डी (एन सी ई डी) / ENCI (ENVI. MGMT.)
एन सी ई डी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सीएल (एनवीएन सीएल) / OCM (ENVY, MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Existing plantation photographs along the Northern part of the Mine Lease



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन एच सीएल (महोदय प्रकल्प) / OCM (ENVT. MGMT.)
इन्फोसिस लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
 कोयला विभाग (पर्यावरण प्रभाग) / OGM (ENVT. MGMT.)
 इन्फोसिस लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Photographs showing # plants have been planted along the northern boundary.



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन.एन.टी.सी. लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवा- कुमार / NAVIN KUMAR
एन.एन.टी.सी. (एन.एन.टी.सी.)/ OGM (ENV. MGMT.)
एन.एन.टी.सी. लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



File No.: File No. J-11015/692/2007-IA-II(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 06/03/2024



To,

Shri NAVIN KUMAR
 M/s NTPC LIMITED
 NTPC Limited, NTPC Bhawan, SCOPE Complex, Institutional Area, Lodhi Road, New Delhi – 110003
 , NEW DELHI, DELHI, , 110003
 environment.ntpc@gmail.com

Subject: Expansion of Pakri Barwadih Coal Mining Project of NTPC (West & East Quarry) [from 15 MTPA to 18 MTPA] (lease area 3319.42 Ha.) located in North Central part of North Karanpura coal fields in Hazaribagh district of Jharkhand State – Expansion EC [Stage I-20% under Ministry's OM dated 11.04.2022- regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/JH/CMIN/462601/2024 dated 13/02/2024 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0101JH5225631N
(ii) File No.	File No. J-11015/692/2007-IA-II(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(a) Mining of minerals
(vi) Sector	Coal Mining Expansion of Pakri Barwadih Coal Mining Project (West & East Quarry) from 15 MTPA to 18 MTPA (20% of the Existing capacity) with peak rated capacity of 19 MTPA.
(vii) Name of Project	HAZARIBAGH, JHARKHAND
(ix) Location of Project (District, State)	HAZARIBAGH, JHARKHAND
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	No

3. The Ministry of Environment, Forest and Climate Change has granted Environmental Clearance (EC) vide its letter

dated 19th May, 2009. Amendments in EC conditions were granted by Ministry: 1st amendment in EC vide letter dated 29.06.2016, 2nd amendment in EC vide letter dated 07.12.2017, 3rd amendment vide letter dated 14.08.2018, 4th amendment vide letter dated 10.11.2020, 5th amendment vide letter dated 16.08.2023, 6th amendment vide letter dated 09.11.2023 and 7th amendment vide letter dated 15.01.2024 in favour of Pakri Barwadih Coal Mine Project (15 MTPA) of M/s National Thermal Power Corporation Ltd. (NTPC) Ltd. located in villages Barkagaon, Itij, Chiruadih, Urub, Chepa, Kalan, Nagri, Jugra, Sinduari, Churchu, Carahara, Sonbarsa, Pakri- Barwadih, Chepa-Khurd, Deora-Kalan, Lakura, Langatu, Keri, Dadikalan, Tehsil Barkagaon, District Hazaribagh, (Jharkand) with certain terms and condition.

4. Pakri Barwadih Coal Mine Project (15 MTPA) of M/s NTPC has made an online application vide proposal no. IA/JH/CMIN/462601/ 2024 Dated 13.02.2024 along with copy of EIA/EMP report, Form-1 and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. (all schedules pertaining to the project) 1(a) Under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level. The PP applied for expansion in production capacity from 15 MTPA to 18 MTPA as per the provision of OM dated 11/04/2022 [Stage-I 20% Expansion]..

5. Project proposal was considered by the EAC in its 7th meeting held on 12-14th Feb, 2024. Project proponent along with QCI/NABET consultant (M/s GreenC India Consulting (P) Ltd) made the detailed presentation and provided the following information to the committee:

i. The project area is covered under Survey of India Topo sheet No 73E/1 and 73E/5 and is bounded by the geographical coordinates ranging from Latitude 23° 51’ 30” N to 23° 55’ 40”N and longitudes 85° 09’ 19” E to 85° 15’00” E. The coordinates of the ML area are given in Table 1.3 of EIA Report.

ii. Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC’s vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.

iii. PP submitted that There is total 1787 Ha of forest land in the 4695 ha of block area. However, the present mining activity is restricted to the EC area of 3319.42 ha. wherein the forest clearance for 1026.438 ha forest area is already obtained. The details of the approval already obtained or applied for is as follows:

Sl. No.	Obtained vide letter No.	Area (ha)	Stage I/II	Validity
1	F.No.8-56/2009-FC dated 07.09.2010	1026.438	II	Co terminus with lease
2	FP/JH/RAIL/16048/2012/2686 dated 31.1 0.2018	6.291	II	
3	F.No.8-56/2009-FC-(Vol) dated 26.05.202 3	331.198	I	
Total		1363.927		

Total broken forest area: As of now out of 1026.438 ha of diverted forest area in PB (West & East) quarry, 389.19 Ha Forest area have been Broken. PP submitted that there is no violation of FC Act. However, violation of the Forest Clearance Condition has been reported. The compliance of the same is provided in the ATR.

iv. **Protected Area:** PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. There is no violation of WLP, Act. PP submitted that Schedule-1 species is present in the study area and for which an Integrated Wildlife Management plan has already been prepared by State Forest Dept. and approved by CWLW Jharkhand. Further, a site-specific wildlife management plan in line with Integrated Wildlife Management plan has also been prepared and approved by CWLW, Jharkhand. The same is already under implementation by State Forest Department. NTPC has contributed an amount of Rs. 170.3146 Crores (Rs. 125 Crores for PB West and East Quarry and Rs. 45.3146 Crores PB-Northwest Quarry) towards implementation of site-specific wildlife management plan.

v. **Previous Approvals:** PP reported that previous approval obtained for the said project is as follows:

Sl. No.	Details of Letter No.	EC/Expansion EC/Amendment in EC/Validity Extension/Transfer of EC	Capacity	Area (Ha)	Remarks if any
1	J-11015/692/2007-IA.II(M) dated 19.08.2009	EC	15 MT PA	3319.4 2	Fresh

2	J-11015/692/2007-IA.II(M) dated 29.06.2016	Amendment in EC	15 MT PA	3319.4 2	Road transport granted till 28.06.2018
3	J-11015/692/2007-IA.II(M) dated 07.12.2017	Amendment in EC	15 MT PA	3319.4 2	Specific Condition
4	J-11015/692/2007-IA.II(M) dated 14.08.2018	Amendment in EC	15 MT PA	3319.4 2	Road transport granted till 28.06.2020
5	J-11015/692/2007-IA.II(M) dated 10.11.2020	Amendment in EC	15 MT PA	3319.4 2	Road transport granted till 28.06.2022
6	J-11015/692/2007-IA.II(M) dated 16.08.2023	Amendment in EC	15 MT PA	3319.4 2	Road transport granted till 28.06.2023
7	J-11015/692/2007-IA.II(M) dated 09.11.2023	Amendment in EC	15 MT PA	3319.4 2	Road transport granted till 31.01.2024
8	J-11015/692/2007-IA.II(M) dated 15.01.2024	Amendment in EC	15 MT PA	3319.4 2	Road transport granted till 31.07.2024

vi. Mining Lease: Please provide the details of mining lease (if in parts then details provided in table). In case an outside lease area is also proposed in project area then details of LOI obtained needs to be provided.

Sl. No.	Govt. Order/Notification as the case may be	Area (ha)
1	CBA Notification	4428.92
2	Details of LOI (for area outside lease area)	193.85
3	LA area (outside lease area for conveyor and siding)	72.23
Grand Total		4695.00

Date of Block allotment/ lease with its expiry date: 13016/29/2003-CA Dated 11.10.2004. An application for grant of the LOI have been made to Department of Mining & Geology, Govt of Jharkhand vide ltr No. 1040/PBCMP/ Mining/2023/33 dated 30.01.2024. Due to recent political crisis in the state the issuance of the LOI was stalled. NTPC do undertake and assures that no mining activity shall be carried out in 193.85 ha area till the LOI is issued by the State Government. The undertaking in this regard is submitted.

vii. Mining Plan: The very first mining plan & mine closure plan for the project was approved for (capacity: PB (West & East): 15 MTPA and PB (Northwest): 3 MTPA, within total Area of 4695 ha) vide letter dated 25.08.2006.

Sl. No.	Details of Letter No.	Capacity	Area	Remarks if any
1	13016/29/2003-CA-I dated 25.08.2006	15 MTPA	4426 Ha	PB West & East
2	13016/29/2003-CA-I (Part) dated 07.03.2016	18 MTPA	4695 Ha	PB West & East: 15 MTPA PB Northwest: 3 MTPA
3	NTPC dated 21.09.2023	22 MTPA	4695 Ha	PB West and East: 19 MTPA PB Northwest: 3 MTPA

The mine plan was approved by the MoC in the year 2006 and 2016 vide letter ref. mentioned at sl. 1 & 2 in the above table. As per the OM issued by the MoC vide ref. No. F. No. 34011/28/2019-CPAM dated 29.05.2020 as per the clause 1.3(A) & 1.3(B) of the same PP is empowered to approve mining plan for minor changes including capacity expansion up to 50%.

viii. Integrated Project: PP submitted that it's not an integrated project.

ix. Method of Mining: Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for Normative capacity peak capacity as per approved mining plan is 18 MTPA. excavation of Coal is through shovel/dumper combination/ Surface Miner: shovel/dumper combination (Coal shall be extracted up to 300-meter depth line by combination of inclined and horizontal slicing method through deployment of Shovel-Dumper combination.). The waste/OB handling is with shovel/dumper combination (inclined slicing for intervening parting and horizontal slicing method for top OB benches).The net Geological Reserve is 707 MT, mineable reserves is 519.34 MT, extractable mineral reserves is 503.38 MT and percentage of extraction is 77.58.

x. Details of Seams:

Description	PB West and East Quarry (15 MTPA)
No. of seams	Five seams with multiple splits/ partings

Thickness Range of Coal seams/ partings	0.16 m – 20.04m
Grade of coal	G-10
Stripping Ratio	4.17
Category of gaseousness	Non-gassy
Average gradient	10 deg to 15 deg
Maximum thickness of seams	20.04

xi. Life of mine (as per Revised Mine Plan 2023) is 36 Years (from 2016) @ 19 MTPA PRC.

xii. Dumps: The project has 4 nos. of external OB dumps (height- 60m to 90m) to accommodate 558.09 Mm³ of OB as per following break up: Table 3.1.2 of revised mining plan 2023 (Waste Disposal Schedule). Total 3 no's of internal OB dump to accommodate 1540.62 Mm³ of OB

xiii. Details of Land usage: The present proposal is for enhancement of the PRC from 15 MTPA to 18 MTPA in the EC area of 3319.42 ha. The details of the land usage given as under.

Type	Pre-Mining	Post Mining
	Area (Ha)	Area (in Ha)
Agriculture Land	1950.51	442.00
Forest Land	643.90	
Barren and Waste	159.64	
grazing	435.00	223.00
Human Settlement	101.22	-
Road and Seasonal Nallas	29.15	
Water Body		596.00
Plantation		1199.00
Infrastructure/ Public Use		859.42
Total	3319.42	3319.42

xiv. Details of transportation of Coal: The coal is proposed to be transported in the following manner-

Inpit: Using various size Dump trucks

Surface to siding: By Closed Conveyor System & Roads

Siding to loading:Planned by Rapid loading silo system, which is presently under construction.

Wharf wall loading by pay loader during interim period till the completion of rapid loading silo system. Thereafter, by Railway wagons. Quantity being transported by Road/Rail/conveyer/ropeway: After enhancement of PRC from 15 MTPA to 18 MTPA, total coal from Pakri Barwadih Coal Mines Project (i.e. from West & East Query) shall be transported by road till 31.12.2024 up to the nearby railway sidings and therefrom by rail to various thermal power plants of NTPC Ltd. After completion of the RLS System, 15MTPA shall be transported through CHP and the additional quantity of 3 MTPA coal from Pakri Barwadih Coal Mines Project (i.e. from West & East Query) shall be transported by road up to the nearby railway sidings and therefrom by rail to various thermal power plants of NTPC Ltd.

xv. Reclamation: The reclamation plan includes i) Afforestation shall be done progressively covering an area of 1772 ha at the end of mining. This will include:

1. Reclaimed external OB dump (in ha) :885

2. internal dump (in ha) : 581

3. Green belt (in ha) :18

4. Density of tree plantation (in no of plants) : 2500 /Ha

5. Void (in ha) at a depth of (in m) which is proposed to be converted into water body : 688Ha & depth of 300m

xvi. Legal Issues/ Violation: There is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. However, there are 5 court cases (High Court of Jharkhand: 03 Nos.; NGT (EZ), Kolkata: 02 Nos.)

xvii. Baseline Studies: Baseline data was collected for the period 01.12.2022 to 28.02.2024 for AAQ parameters at 10 locations, ground water quality parameters at 06 locations, surface water quality parameters at 8 locations etc.

xviii. Water Requirement: Total water requirement for the PB West and East Quarry is 5026 KLD and is to be met from Ground water and Mine seepage. As ground water level varies from 2.44 to 8.9 (pre & post monsoon) in the area the same shall be intersected during the mining activity. PP submitted that NOC has already been obtained vide CGWA/NOC/MIN/ORIG/2023/ 17449 dated 03.01.2023 which is valid till 2.01.2025. PP submitted that Dumuhani Nala has been diverted after obtaining permission from Water Resource Deptt. Govt. of Jharkhand dated 19.03.2013 as per EC

specific condition no. (iv).

xix. Public Consultation: Public Hearing was held under the Chairmanship of Additional District Collector on 16.04.2007 for an area of 4626 Ha. including part of PB-NW (unexplored at that time.) The Major issues raised in the public hearing for PB West, and East Quarry include Employments, Compensation, Infrastructure etc. Appropriate action to address the issues raised in the Public Hearing of PB West and East Quarry have already been undertaken. Commitment made by the Project Proponent to address the Public Hearing concerns in lieu of Corporate Environment Responsibility (CER) to be mentioned in the following table:

Public Hearing on 16.04.2007 for PBCMP (West and East Quarry)	
Concerned raised by Public	Commitment made by PP
Only non- environmental issues like land compensation, Community development were raised by S Mithilesh Kr Dangi, Village- Harli, Shri Rafiq ue Ansari, Village- Chepakhurd, Ganesh Prasad Mehta and Arun Anand, Village- Amritnagar.	Although no specific environmental issues were raised during the public hearing, NTPC has undertaken following measures in line standard practices in its mining projects. a) Pollution Control Measure- Various activities are undertaken for dust suppression, plantation/ green belt development, dump stabilisation, environment monitoring, scientific studies, etc. Till Sep 2023, Rs 77.23 Cr has been spent for the same. b) R&R Measures- The project involves 8339 project affected families. R&R of the 1290 PAPs has been done as per approved R&R Plan till Sep 2023. R&R shall be undertaken in stages as and when the PAPs are displaced. Total approved R&R budget till date is Rs 3552 Cr. Out of which Rs 1912 Cr has been spent till 30.09.2023 on land acquisition and rehabilitation of project affected persons. c) CSR Measures- Various activities have been done under community development/ CSR like, supply of drinking water, skill development, education/ technical education, upgradation of community infrastructure, woman empowerment, etc. Till 03.01.2024, Rs 49.78 Cr has been spent for the same.

xx. EMP: Existing capital cost of project was Rs 5044 Cr. The capital cost of the proposed project is Rs 5044 Crores and the capital cost for environmental protection measures is proposed as Rs. 101.28 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 8.50 Crores. The indirect employment around 1000 nos shall be generated from the proposed expansion as project will achieve 18 MTPA with existing direct Manpower. The details of cost for environmental protection measures are as follows:

Sl No.	Description of item	Existing (In Lakh Rs) EIA/EMP-Yr-2007)		Proposed (In Cr/Lakh) (EIA/EMP -Yr-2023)	
		Capital Cost (In Lakh Rs)	Recurring Cost (In Lakh Rs/year)	Capital Cost (In Lakh Rs)	Recurring Cost (In Lakh Rs/year)
(i)	Air Pollution Control/ Noise Management	100	12	2578	270
(ii)	Water Pollution Control			400	25
(iii)	Environmental Monitoring and Management	25	5	1150	255
(iv)	Green Belt Development	1980	42	6000	300
Total		2105	59	10128	850
(v)	Other heads as proposed in EIA/committed during the EAC for CER activities	-	20	4000	150

xxi. R&R Plan: The project involves 8339 project affected families. R&R of the PAPs will be done as per R&R plan

approved by state govt. vide Sankalp no- Sankalp No. 116 / R dated 27.02.2013. Total approved R&R budget till date is Rs 3552 Cr. Out of which Rs 1912 Cr has been spent till 30.09.2023 on land acquisition and rehabilitation and resettlement of project affected persons.

xxii. Benefit of Project: Supply of 12 to 13 rakes of coal per day to power plants of NTPC Limited (@ 3894 MT/ Rake) to meet the power demand of Country, generation of direct (222 nos in operation phase) & indirect employments to Locals, Development of basic infrastructure in the area, Socio-economic development of the area, Skill Development of locals, Revenue to the Central and state Government in the form of Royalty and Taxes, Revenue to the railways in the form of freight charges.

xxiii. Undertaking/Affidavit: An application for grant of the LOI have been made to Department of Mining & Geology, Govt of Jharkhand vide ltr No. 1040/PBCMP/Mining/2023/33 dated 30.01.2024. Due to recent political crisis in the state the issuance of the LOI was stalled. NTPC do undertake and assures that no mining activity shall be carried out in 193.85 ha area till the LOI is issued by the State Government and also submitted an undertaking in this regard.

6. Proposal was considered by the EAC in its 7th EAC meeting held during 17-18 January, 2023. After detailed presentation by the PP along with the consultant, EAC noted that Present proposal is for an increase of PRC from 15 MTPA to 18 MTPA within the area of 3319.42 ha for which the EC has been accorded vide ltr. no. J-11015/692/2007-IA. II (M) dated 19.05.2009. There is no additional land acquisition or forest land diversion involved for the proposed capacity enhancement vis-à-vis the area mentioned in the EC (i.e. 3319.42 ha), based on which Public Hearing (PH) was held earlier on 16.04.2007. EC was granted in year 2009 for the mining in 3319.42 Ha .for PB-West & East quarries of 15 MTPA PRC.

7. The Committee further observed that out of 3319.42 Ha of area as mentioned in EC the area admeasuring 193.85 Ha is acquired in the LA act and PP submitted an undertaking dated 07.02.2024 to the effect that presently the mining activities are restricted in the area acquired under CBA Act 1957 and no mining activity shall be undertaken/carried out in the above mentioned 193.85 Ha LA area till the Letter of Intent (LOI) is obtained from the State Mining & Geology department, Government of Jharkhand. The committee is of the view that mining activities in this area shall be only be carried out after obtaining the mining lease and other permission/clearances from the concerned authorities as per law.

8. EAC after detailed deliberation on the compliances in terms of provision of Ministry's OM dated 11.04.2022, mining lease/mining plan/EIA-EMP report/CCR **recommended** the Environmental Clearance under Ministry's OM dated 11.04.2022 for Pakri Barwadih Coal Mine Project of M/s NTPC Limited with increase of production capacity from 15 MTPA to 18 MTPA (Stage I) under Ministry's OM dated 11.04.2022 in total ML area of 3319.42 ha at located in villages Barkagaon, Itij, Chiruadih, Urub, Chepa, Kalan, Nagri, Jugra, Sinduari, Churchu, Carahara, Sonbarsa, Pakri- Barwadih, Chepa-Khurd, DeoraKalan, Lakura, Langatu, Keri, Dadikalan, Tehsil Barkagaon, District Hazaribagh, Jharkand with the specific conditions and Standard EC conditions under the provisions of EIA Notification, 2006 and its amendments.

9. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC hereby accords Environment Clearance for the instant proposal to M/s NTPC Limited for Pakri Barwadih Coal Mine Project with increase of production capacity from 15 MTPA to 18 MTPA (Stage I) under Ministry's OM dated 11.04.2022 along with road transportation (only till 31st July, 2024) in total ML area of **3319.42 ha** located in villages Barkagaon, Itij, Chiruadih, Urub, Chepa, Kalan, Nagri, Jugra, Sinduari, Churchu, Carahara, Sonbarsa, Pakri- Barwadih, Chepa-Khurd, DeoraKalan, Lakura, Langatu, Keri, Dadikalan, Tehsil Barkagaon, District Hazaribagh, Jharkand State under the provisions of Environment Impact Assessment Notification, 2006 and its amendments therein with additional specific conditions **Annexure (1)**

10. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

11. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable,

to the project.

12. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

13. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

14. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

15. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court. This environmental clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

16. General Instructions:

· The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.

· The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.

· The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

· Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

· Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

· The Regional Office of this MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

17. This issue with an approval of the Competent Authority

Copy To

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
3. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
4. The Additional Principal Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment & Forests,

Bungalow No. A-2, Shyamali Colony, Ranchi – 834002.

5. The Chairman, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi.

6. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi, 32

7. The District Collector, Hazaribagh, Government of Jharkhand.

8. Monitoring File/Guard File/Record File.

9. PARIVESH Porta

Annexure 1

Specific EC Conditions for (Mining Of Minerals)

1. Specific Conditions

S. No	EC Conditions
1.1	<i>PP to obtain the CTO for Opencast coalmine capacity of 18 MTPA after grant of EC.</i>
1.2	<i>No mining activities shall be carried out within an area of 193.85 Ha till the time PP obtains all the valid permission and mining lease from the concerned authorities as per law.</i>
1.3	<i>PP shall ensure for control of polluting during the transportation of mineral/waste/OB and implement all the mitigative measures as mentioned in EMP. The budget earmarked for the same shall be kept in a separate account and audited annually. The expenditure incurred shall be reported to RO along with proof of activities carried out.</i>
1.4	<i>PP shall install CCTV camera at all entry and exit point.</i>
1.5	<i>PP shall use mine water for all purpose except for drinking and install dual pumping system. PP shall reduce the water requirement from bore well to 30% within a period of two years.</i>
1.6	<i>PP shall increase the area under agriculture & grazing land and area of void to be reduced suitability as committed during the meeting. PP shall get the mining plan modified accordingly.</i>
1.7	<i>PP shall not dump any waste/OB outside the mine lease area.</i>
1.8	<i>PP shall prepare the scientific reclamation plan in order to reduce the void area post mining.</i>
1.9	<i>PP should conduct the monthly review meeting with the environment management committee of the company.</i>
1.10	<i>PP shall ensure that all type of plastic waste generated from the mines shall be stored separately in isolated area and disposed of strictly adhering to the Plastic Waste Management Rules 2016. In pursuant to Ministry's OM dated 18/07/2022 PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic(SUP) in order to ensure compliance of Ministry's Notification published by the Ministry on 12/08/2021. A report along with photograph on the measures taken shall also be included in the six monthly compliance report being submitted by PP.</i>
1.11	<i>All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented. PP should annually submit the audited statement along with proof</i>

S. No	EC Conditions
	<i>of activities carried to the Regional Office of MoEF&CC and PARIVESH Portal as the case may be for the activities carried out during previous year.</i>
1.12	<i>PP shall conduct feasibility studies for assessment of voids for backfilling of ash and mixing of ash with overburden, taking up backfilling ash and OB mixing activities during operations as well as post closure of mines in line with the Fly Ash Utilization Notification, 2021.</i>
1.13	<i>Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.</i>

Standard EC Conditions for (Mining of minerals)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee prior to start/commencement of mining operations/production
1.5	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.6	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
1.7	Permission of power supply to be taken from the concerned authority for meeting power demand of the project site.

S. No	EC Conditions
1.8	The maximum production or peak production at any given time shall not exceed the limit as prescribed in the EC.
1.9	Validity of Environment Clearance is as per life of the mine mentioned in EC letter or 30 years as per EIA Notification, 2006 and its amendments therein
1.10	All the conditions stipulated in previous Environment Clearance conditions should be strictly complied within certain timeline

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. The new CAAQMS should be installed with expansion.
2.2	The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
2.3	Transportation of coal, to the extent, if permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun/ Fog cannon etc shall be carried out in critical areas prone to air pollution (with higher values of PM10/PM2.5) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
2.4	The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
2.5	PP to install solar lights along the road used for transportation of coal to avoid the accidents at night and also seek its maintenance.
2.6	Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
2.7	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side

S. No	EC Conditions
	cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
2.8	Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.
2.9	Adequate measures on EMP should be analyzed on annual basis to assess the trend of air pollution data from continuous monitoring station and quarterly report shall be generated and submitted with 6 monthly compliance reports to RO, MoEF&CC.
2.10	Effective safeguard measures for prevention of dust generation and subsequent suppression like regular water sprinkling shall be carried out in areas prone to air pollution. The Fugitive dust emission from all sources shall be regularly controlled by installation of required equipment's. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB
2.11	Adequate number of Fog canon (mist sprayer) shall be installed to reduce the impact of air pollution at dust generating sources with time bound action plan.
2.12	PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
2.13	Post environmental closure third party monitoring by reputed instituted in air quality, water, land & soil etc shall be carried out and analysed with EMP measures at regular interval. A suitable recommendation in this regard, shall be furnished to IRO, MoEF&CC for compliance. The data used for analysis shall be obtained from continuos AQMS, site specific water regime. Also third party shall analyses the implementation of river diversion, meeting to the requirement of project report.
2.14	Comparison of average monthly temperature of pre and post mine operation after obtaining EC shall be elaborated for post three years and a record to be maintain at regular interval.

3. Water Quality Monitoring And Mitigation Measures

S. No	EC Conditions
3.1	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
3.2	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
3.3	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e.

S. No	EC Conditions
	pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
3.4	Monitoring of water quality upstream and downstream of river including ponds, lakes, tanks shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
3.5	Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
3.6	Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
3.7	Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
3.8	Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
3.9	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
3.10	The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
3.11	The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A rivarine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
3.12	Quality of polluted water generated from the operations which include COD and acid mine drainage and metal contamination shall be monitored along with TDS, DO, TSS. The monitored data shall be

S. No	EC Conditions
	uploaded on the website of the company as well as displayed at the site in public domain.
3.13	Domestic water shall be providing to the residents/villages which are coming under the zone of influence of the project due to ground water extraction and mining operation by installing adequate number of RO plants with proper supply line and Taps within 2 years
3.14	No obsolete technologies for sewage treatment shall be implemented. Construction of Sewage Treatment Plant with latest technology should be completed within 2 years and treated water shall be reused for plantation. CTE and CTO of STP shall be obtained as per the norms.

4. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
4.1	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
4.2	Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
4.3	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

5. Mining Plan

S. No	EC Conditions
5.1	5- Star Rating is mandatory to obtaine certification as per guidelines of Mininstry of Coal
5.2	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
5.3	Mining shall be carried out as per the approved mining plan (including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
5.4	No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
5.5	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.
5.6	PP shall adopt mining method by preferably using surface miners for the project and silo loading through in-pit conveyor should be adopted

S. No	EC Conditions
5.7	Transportation of coal till Railway Siding shall be developed to avoid transportation through Road

6. Land Recalvation

S. No	EC Conditions
6.1	Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
6.2	The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
6.3	The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/”post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
6.4	Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
6.5	Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
6.6	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.
6.7	Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust
6.8	Progressive backfilling of mine and progressive reclamation of OB dump shall be done

S. No	EC Conditions
6.9	Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
6.10	PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads/ manufacture of artificial sand, aggregates/ use for farmers etc.)
6.11	All approach roads to mine and all other roads which are in regular use should be black topped. The maintenance of road shall be done by PP in collaboration with state government
6.12	Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC

7. Green Belt

S. No	EC Conditions
7.1	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
7.2	Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads. And Plantation should also be carried out in nearby area with consent of forest department and gram panchayat within 10 km radius with its proper maintainance

8. Public Hearing And Human Health Issues

S. No	EC Conditions
8.1	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.
8.2	The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.

S. No	EC Conditions
8.3	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
8.4	Implementation of the time bound action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the time bound action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
8.5	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
8.6	PP to conduct need based assessment survey of the area to for in order to decide the activities to be carried under the CSR and to provide detail of the activity carried out with adequate budgetary provision and time bound action plan.
8.7	PP should conduct epidemiology study to (analysis of the distribution, patterns and determinants of health and disease conditions in defined populations).
8.8	Permanent Health care facilities of Hospital should be established within 5 km of project boundary for the local people.
8.9	PP must ensure an emergency action plan during pandemic in order to provide assistance to the nearby villages located within the 10 km radius buffer zone (If required)
8.10	PP is asked to also identify the rural areas for installation of solar light with its maintenance within the study area of 10 km radius buffer zone within one year
8.11	PP to take measure for installation of Renewable Energy sources in nearby area falling within 10 km radius
8.12	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours
8.13	Adequate facility of drinking water, plantation and other social amenities should be provided to established R&R villages.
8.14	Persons of nearby villages shall be given training on livelihood and skill development to make them employable with its proper records.
8.15	Compensation of the land acquired for the project shall be settled as per the R&R Policy within fixed timeline

9. Corporate Environment Responsibility

S. No	EC Conditions
9.1	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.
9.2	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
9.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
9.4	Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
9.5	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis. Any non-compliance or infringement should be reported to the concerned authority.

10. Miscellaneous

S. No	EC Conditions
10.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
10.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

S. No	EC Conditions
10.5	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
10.6	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10.7	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
10.8	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.9	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10.10	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
10.11	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
10.12	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.13	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.14	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.15	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

Additional EC Conditions

N/A

Photographs of Tarpaulin covered trucks



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी लिमिटेड (एनटीपीसी प्रोजेक्ट्स) / OGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन सी एल (इन्फ्रस्ट्रक्चर) लिमिटेड / DGM (ENVT. MGMT.)
एन सी एल लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

ITEM NO.39

COURT NO.9

SECTION XVII

S U P R E M E C O U R T O F I N D I A
R E C O R D O F P R O C E E D I N G S

Miscellaneous Application No. 1824/2023 in C.A. No. 6249/2021

NATIONAL THERMAL POWER CORPORATION LIMITED (NTPC) Petitioner(s)

VERSUS

TRIPURARI SINGH & ORS.

Respondent(s)

IA No. 155852/2023 - EXTENSION OF TIME

IA No. 192404/2023 - GRANT OF INTERIM RELIEF

Date : 29-01-2024 This matter was called on for hearing today.

CORAM : HON'BLE MR. JUSTICE J.K. MAHESHWARI

HON'BLE MR. JUSTICE SANJAY KAROL

For Petitioner(s) Mr. Tushar Mehta, Solicitor General
Ms. Aishwarya Bhati, A.S.G.
Mr. Adarsh Tripathi, AOR
Mr. Vikram Singh Baid, Adv.
Mr. Ajitesh Garg, Adv.

For Respondent(s) Mr. Anand Varma, AOR
Ms. Adyasha Nanda, Adv.

Mr. Shivam Kumar, Adv.
Mr. Vaibhav Prasad Deo, Adv.
Ms. Mudita Arora, Adv.
M/S. Qua Legal, AOR

Mr. Piyush Beriwal, Adv.
Mr. S K Gupta, Adv.
Ms. Nidhi Khanna, Adv.
Ms. Chinmaee Chandra, Adv.
Mr. Rajesh Kumar Singh, Adv.
Mr. Ishaan Sharma, Adv.
Ms. Muskan Gupta, Adv.
Mr. Gurmeet Singh Makker, AOR

UPON hearing the counsel the Court made the following
O R D E R

I.A.No. 155852 of 2023

Having heard learned Solicitor General appearing for the petitioner – NTPC and learned counsel appearing for the respondents,

we are of the considered view that in view of the averments made in the application for extension of time i.e. I.A. No. 155852 of 2023, the time as fixed vide our order dated 20.10.2023 is required to be extended till 31.12.2024. Ordered accordingly.

In view of the above, Misc. Application No. 1824 of 2023, along with I.A. No. 155852 of 2023, is, accordingly, disposed of.

(JAYANT KUMAR ARORA)
ASTT. REGISTRAR-cum-PS

(VIRENDER SINGH)
BRANCH OFFICER

THRIVENI SAINIK PBNW PRIVATE LIMITED

Project Office: C/o. NTPC Ltd., Langatu, PO: Barkagaon,
Dist.: Hazarbag-825311, Jharkhand, India
Phone : 06546-223115, Email : asn@thrivenisainik.com



PBNW

Ref: TSPPL/Consultant/PBNW/23-24/01

Date: 18th Aug 2023

To,
Indian Institute of Technology (Indian School of Mines)
Department of Environmental Sc & Engineering
(Centre of Mining Environment)
Indian Institute of Technology (Indian School of Mines)
IIT (ISM), Dhanbad – 826004, Jharkhand, India

Kind Attention: - Dr. Biswajit Paul, Professor & Head, Centre of Mining Environment, ISM

Sub: Scientific Studies for Forest Clearance of Pakri Barwadih North West Coal Block of PBCMP, NTPC Ltd.

Ref: Email on Aug 15, 2023 & Aug 18, 2023 - reg

Dear Sir,

With reference to above and subsequent discussion with us, we are pleased to place the work order on you with the scope, deliverable and conditions as stipulated hereunder. Henceforth Indian Institute of Technology (Indian School of Mines) would be called as 'ISM / Service Provider / Consultant' and M/s Thriveni Sainik PBNW Pvt. Ltd would be called as 'TSPPL'.

A. SCOPE OF WORK:

1. **Scope of Services Provider:**

ISM shall fulfill the below requirement as given in condition of Stage-I Forest clearance vide Ltr. No "F. No. 8-56/2009/144905/2023 –FC Dtd: 26th May, 2023".

- Reclamation, Eco restoration, and Conservation Plan will be prepared by conducting proper study before initiating mining activities.
- Study of river-aquifer interaction using non-invasive geo-physical technique in 10 km radius of NTPC Pakri Barwadih North West Coal Block Site will be conducted to facilitate the delineation of groundwater potential zones, ground water variation in these zones and help in water budgeting to the surroundings.
- An integrated soil and water conservation plan will be prepared and implemented for the entire landscape affected by the mining activities in the region.
- The Catchment Area Treatment Plan will be prepared and implemented at the cost of the user agency for the treatment of all Nallahs/streams pertaining to instant mining lease/project area.
- Generation/assessment/validation of drone survey data on spatial and seasonal status of Khorra Nalla & Pakwa Nalla watersheds for having first-hand information on the current status of the Khorra and Pakwa Nallas watershed parallel to the ongoing mining activities.
- The Service Provider shall collect data, processing and interpretation in effective and exclusive manner.
- The verification and certification by the agency shall be to the satisfaction of State Forest Department.

2. **Scope of TSPPL:**

- Mine plans and other required documents will be provided for the study.
- Available scientific studies and reports will be provided for the study.
- Engagement of officials to support the scientific study and report preparation.

3. **Report Submission:**

- The Consultant shall ensure that draft report (soft copy) need to be submitted for review within 6 months from the date of order issue and final report submission within one month from the date of review by Project Proponent.
- Separate report to be provided for each scope (a to e) mentioned in the scope of service provider for MOEF submission.

The Service Provider is tasked with the responsibility of offering clear and detailed explanations about the report submitted to M/s. NTPC Ltd.

Registered Office

F.No.-2, S-VIII, Rama Krishna Puram, South Delhi, New Delhi, India - 110022
CIN: U14294DL2020PTC362932

Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन सी ई आर (नवीन प्रोजेक्ट) / CGM (ENVT. & GMF)
एन सी ई आर लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारबाग / Hazarbag

S. S.



- d) The Service Provider should be ready to provide explanations to the act of addressing any doubts, queries, or uncertainties to M/s. NTPC Ltd, as and when required by TSPPL.
- e) The requirement to provide clarifications and explanations should adhere to the terms and conditions laid out in the work order. The Service Provider needs to ensure that they meet the obligations and expectations defined in the contract.
- f) The Service Provider shall submit 2 hard copies of the interim and final certification report along with a soft copy.
- g) The report should be submitted in the favor of Pakri Barwadih North West Coal Block, M/s NTPC Ltd. For every individual study, separate report shall be submitted in the name of Pakri Barwadih North West Coal Block, M/s NTPC Ltd.

B. RATE / ORDER VALUE:

1. Schedule of Charges.

S. No	Description	Amount (Rs.)
1	Scientific Studies for Forest Clearance of Pakri Barwadih North West Coal Block	Rs. 25,00,000/- (Twenty Five Lakhs Only)

2. GST 18% Extra
3. The price is firm and binding throughout the term of the contract term and no escalation is admissible during the contract term.
4. Taxes: Taxes extra as per the Govt.'s works contract rule and if tax slab changes during the Contract validity period then the new tax slab will be applicable;
5. No TDS will be deducted. An educational institute IIT(ISM) is exempted from Income Tax under Section 10 (23C) (iiiab), of Income Tax Act 1961
6. The Service Provider shall settle and clear all the outstanding liabilities before the settlement of final payment.

C. VALIDITY & TERMINATION OF CONTRACT:

1. Effective date of Contract: 18.08.2023
2. Contract Validity period: 18.08.2023 to 28.02.2024.
3. TSPPL reserves the right of extension or cancellation of the contract, by serving an advance 7 days' notice; no compensation is tenable for the said termination.
4. Termination:
 - a) In the event, where, Service provider fails to comply with the conditions, responsibilities, and scope etc. as mentioned w.r.t the 'Work order'.
 - b) In the event of Service provider's failure to execute the work/study with due diligence and/or up to the expectation and satisfaction of TSPPL; in such cases, TSPPL reserves the right to complete the remaining work on behalf of the 'Service provider' and complete the work at risk and cost of the Service provider.
 - c) In the event that the Services are terminated, the Service provider shall be entitled for payment of such part of the Services rendered up to the date of termination only.

D. PAYMENT TERMS:

1. The payment shall be released as follows:
 - a) Advance payment of 50% along with Work Order.
 - b) Remaining 50% of payment will be made after submission of final report of the study.

TAXES: Payment to 'Service Provider' shall subject to deduction of Tax at source as applicable as per statute. Taxes, Duties, and payable to State/Central Government, local bodies are to be borne by the 'Service Provider'.

S. S.



3. PAYMENT: - Payment will be done only by E-Payment, Cheque or Demand Draft. In case of E-Payment and Demand Draft; the bank charges will be deducted. ISM or the duly authorized representative may collect the payment on behalf of ISM. At the time of release of payment, the Contractor should produce valid document whichever is applicable and called for by TSPPL.

4. Billing Address: Bills/Invoices with 02 set of hard copies, to be sent to TSPPL at the following address:

Thrivani Sainik PBNW Private Ltd, Project Office, Langatu
Barkagaon, Hazaribag Dist, Jharkhand, PIN: 825311

E. GENERAL CONDITIONS OF CONTRACT

1. INDEMNITY

- The Service provider shall indemnify and keep indemnified and save harmless TSPPL from and against all actions, suits, proceedings, losses costs, damages, charges, claims and demands of every nature in the execution of the works or in violation of any terms of this contract.
- TSPPL reserves the right to deduct/recover the money due to the Service provider any sum notified under the provisions of the relevant Act(s) caused because of violations of any terms and conditions of this contract during or after the contract tenure.
- The Service provider shall indemnify TSPPL against all or any payments to be made under and for the observance of any Act, rules & Regulations aforesaid without prejudice to their right to claim indemnity from their staff / sub agencies.

2. FORCE MAJEURE

For any reason whatsoever, which is beyond the reasonable control of both parties such as serious law and order issues, lock-outs, work stoppages, natural calamities, Pandemic, epidemic, lock out, quarantine, embargo, riots, war (whether declared or not), radiation issues etc and / or work is prohibited by way of any notice/circular/order enacted by statutory bodies, preventing the project/business work to continue (even temporarily), in such cases, obligations of either party would be excused upon documentary evidence for such periods, only. TSPPL will not be required to make the payment for such period of stoppage and at its discretion can decide to foreclose the contract. Both parties to contract reciprocally will not be held responsible for any concurrent and / or consequential losses in this regard.

3. CONFIDENTIALITY

The Service provider shall always keep confidential the contents of this Agreement and will not make any disclosure of the existence of this Agreement or any terms of this Agreement without the consent of the TSPPL, unless required by law.

The Service provider agrees to promptly return all Confidential Information and copies thereof, that is documentary altered or copied, or changed in any way within 10 (ten) days from the written request of TSPPL or on the completion of the Services.

4. ASSIGNMENT

The Service provider shall not, without previous consent of TSPPL in writing, assign any benefit or obligations under this Agreement or any part thereof to any other person or parties.

5. DISPUTE RESOLUTION

Service provider and TSPPL shall meet at a mutually agreed time and place and shall put in their best efforts to resolve in an amicable, efficient and effective manner any dispute which may arise from time to time in connection with this Contract.

Navin Kumar

नवा: कुमार / NAVIN KUMAR
आ. मा. उ. उ. (सर्वोच्च प्रमाण) / OGM (ENV. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

S. S.



6. ARBITRATION

If at any time dispute arises between TSPPL and the Service provider in course of operation of this 'Work order' the dispute shall be referred to 3 arbitrators, one from each side under the provision of Arbitration & Conciliation Act 1996 and later amendments if any. The nominated arbitrators shall appoint a chairman arbitrator. The arbitration proceeding shall be held at Ranchi District in the State of Jharkhand under the Jurisdiction of Court of Law of State Jharkhand. For all purpose and legal dispute will be under the jurisdiction of the Court of Law at Ranchi, Hazaribagh, Jharkhand.

7. JURISDICTION

The parties hereto unconditionally and irrevocably agree to submit to the exclusive jurisdiction of the competent courts in Ranchi only with regard to any question or matter arising out of this Agreement and any other documents that may be executed by the parties hereto or any of them in pursuance hereof or arising here from.

8. INTELLECTUAL PROPERTY (IP) RIGHTS

All copyrights, design rights or patents in all drawings, reports, specifications, calculations and other documents supplied/produced by the Service provider ('the Intellectual Properties') shall belong to TSPPL, subject to the condition that TSPPL shall pay the professional fees as per relevant clause of this Agreement for the completed level of service. In the case of early termination of this Agreement, TSPPL shall have the exclusive proprietary right for the partial completed set of documents without any restriction. TSPPL shall at all time will be at its liberty to continue with the Project/partial completed set of documents either by itself or by appointing any third party Service providers. However, the documents provided by Service provider is required to be used by TSPPL for other purpose which is not related to the project under consideration here, then written approval shall be taken from Service provider for usage.

Thanking You,
Yours faithfully

For Thriveni Sainik PBNW Pvt. Ltd. (TSPPL)



Authorized Signatory



"The above mentioned terms and conditions are acceptable to us and we shall abide by these." Accepted on behalf of
Indian Institute of Technology (Indian School of Mines)

Authorized Signatory

Navin Kumar
नवा कुमार / NAVIN KUMAR
एन सी ई टी (भारतीय प्रविष्टि) / IIT (INDIAN SCHOOL OF MINES)
एन सी ई टी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Dust Suppression through Water Tanker



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सी ई मैन (नवीन प्रकल्प) / EGM (ENVT. MGMT.)
इन्डोरीसी लिमिटेड / NTPC Limited
कोयला खनन प्रकल्प / COAL MINING PROJECTS
इन्डोरीबाग / Hazaribag

Water Sprinkling at Banadag Railway Siding



Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन सी ई डी सी (एन सी ई डी सी) / DCM (ENVT. MGMT.)
एन सी ई डी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Banadag, Jharkhand, India
X7FV+659, Banadag, Jharkhand 825302, India
Lat 23.972733°
Long 85.29435°
02/05/24 05:40 PM GMT +05:30

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन.एस.डी.सी. (पर्यावरण प्रबंधन) / OGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Photographs of Boundary wall with 20 ft. windscreen



Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन सी ई एम (नवीन प्रकल्प) / DGM (ENVT. MGMT.)
एन टी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
का. महाप्रबन्धक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
का. माहप्रबन्धक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Plantation photographs at Banadag Railway Siding



Navin Kumar

नवऱ कुडर / NAVIN KUMAR
ऑ डररररर (ररररर डररर) / OGM (ENV. MGMT.)
ऑररररर ररररर / NTPC Limited
ऑररर डररर ररररररर / COAL MINING PROJECTS
ऑररररर / Hazaribag



एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited
(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Ref: 1040/PBCMP/EMG/2023/F-47/199

Date: 19.10.2023

To,

The Deputy Director General of Forests (C),
MoEF & CC, Regional Office,
2nd Floor, Headquarter, Jharkhand State Housing Board,
Harmu Chowk, Ranchi (Jharkhand) - 834 002.

Sub: Submission of status of Dumuhani Nallah as per specific condition no. 1.3, 1.5 and 1.8 of the Environmental Clearance amendment dated 16.08.2023 accorded by MoEF & CC for NTPC Ltd - Pakri Barwadih Coal Mining Project (15MTPA): Reg.

Ref: 1. EC Ref. no. J-11015/692/2007-IA-II(M) Dated 19.05.2009.
2. Letter No. 2/PMC/ND-171/2012/224 Dated 19.03.2013.
3. EC Amendment dated 16.08.2023.

Respected Sir,

With reference to specific condition no. 1.3, 1.5 and 1.8 of the Environmental Clearance amendments dated 16.08.2023, **I hereby submit the Following:**

Condition no-1.3 & 1.5 -It is kindly submitted that in compliance of the specific condition no. iv of EC dated 19.05.2009, the CWPRS was awarded the study and designing of the Nallah diversion. Based on the above study report of CWPRS, NOC/permission has been accorded by Water Resource Dept, GoJH for realignment of Dumuhani nallah vide letter mentioned under reference 2 (**attached as Annexure-1**). In line with this, to continue the mining operation 3.1 Km length of Dumuhani nallah has been re-aligned. Rest of the part of Dumuhani Nalla is intact. Photographs (**attached as Annexure-2**) and Drone Video of Dumuhani Nalla (**attached as Annexure-3**) is being submitted to your kind office. It is further submitted that NTPC Ltd PBCMP shall make all possible efforts towards protecting catchment area of the streams flowing within the lease boundary as well as along the boundary of lease area until mining operation reaches its vicinity.

Nitin Kumar

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग – 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311

Condition No-1.8- It is kindly submitted that required "Public Grievance Redressal and Monitoring System" has been established at Pakri Barwadih Coal Mining Project for resolving any issues related to the pollution of mines. Adequate awareness is being spread among the public / local villagers to address their grievance. A logbook is being maintained by NTPC on "Public Grievance Redressal and Monitoring System". The same is being monitored weekly by Head of Department (Envt Mgmt.) and monthly by Head of Project (PBCMP).

Thanking you.

Yours Faithfully,

Navin Kumar

[NAVIN KUMAR]

नवीन कुमार / NAVIN KUMAR

असistant डायरेक्टर (पर्यावरण प्रबंधन) - DGM (ENVT MGMT.)

एनटीपीसी लिमिटेड / NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

Encl.: A/a

Photographs of Laboratory



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन सी ई डी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एन टी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन.एच.एम. (नवीन एन.एम.) / OGM (NVT, MGMT.)
एन.टी.पी.सी. लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवा- कुमार / NAVIN KUMAR
का महाप्रबन्धक (पर्यावरण प्रबन्धन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT, NTPC LTD.

ENVIRONMENTAL MONITORING EQUIPEMENTS

Sl. No.	Name of Equipment	No. of Equipments
1.	Respirable dust sampler	5
2.	Fine Dust Sampler	5
3.	High Volume Sampler	1
4.	Continuous AAQ Monitoring Station	1
5.	Continuous AAQM PM ₁₀ Analyzer	1
6.	Noise Level Meter	1
7.	Telemetry Piezometer	2
8.	Telemetry Ground Water Level Meter	4
9.	Meteorological Station	1
10.	pH, TDS, EC Handy Meter	1



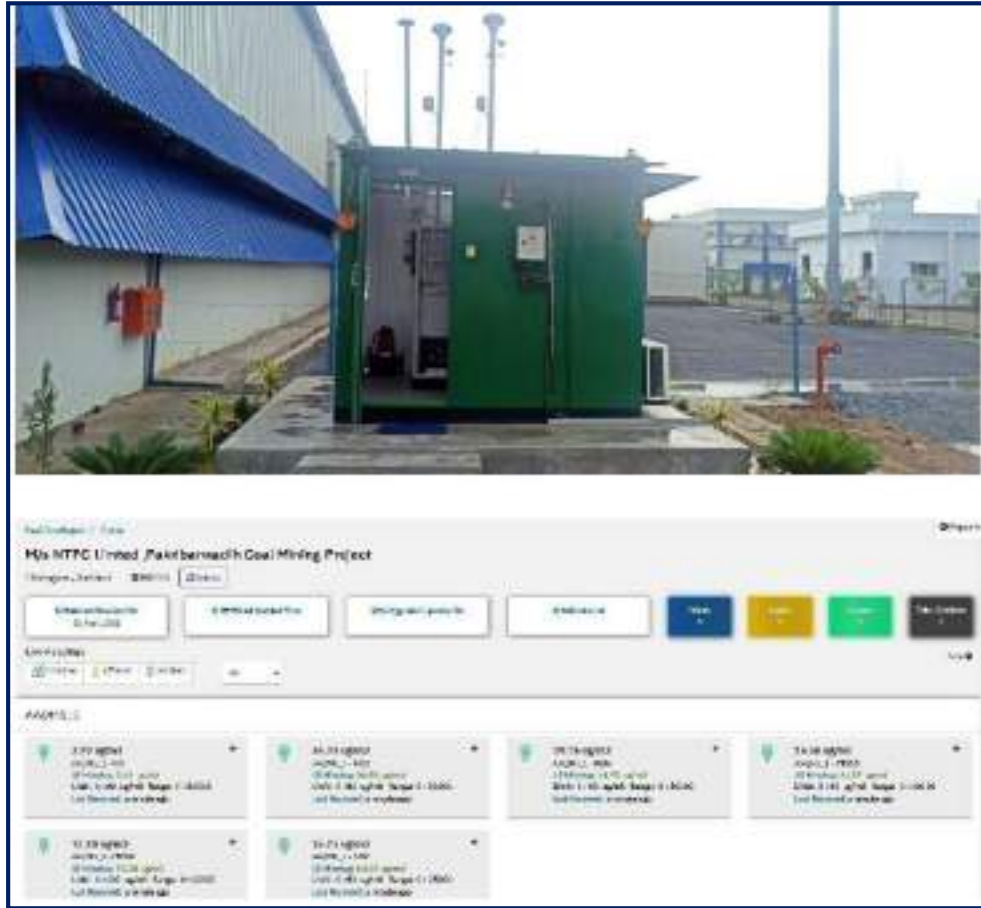
Ambient Air Quality Monitoring

Navin Kumar

नवऱु कुडडर / NAVIN KUMAR
डर डरररररर (रररररर डररर) / DGM (ENVT. MGMT.)
डरररररर डररररर / NTPC Limited
डरररर डररर डररररररर / COAL MINING PROJECTS
डरररररर / Hazaribag

Continue Ambient Air Quality Monitoring Station.

CAAQMS Online Monitoring System installed at Site Office, the monitoring system is monitoring the parameter like PM₁₀, PM_{2.5}, SO₂ & NO_x. The real time data is generating continuously and transferring to JSPCB server.



Continuous Ambient Air Quality Monitoring Station



Continuous PM₁₀ Analyzer at Banadag Railway Siding

Navin Kumar



SLM 100 - Noise Monitor

Two (02) nos. Piezometers inside the mine premises with continuous automatic data recorder



Location: Langatu Office Area



Location: NTPC Office, Sikri

Navin Kumar

The project has installed Four (4) nos. water flow recorder in & around the project area with continuous automatic data recorder for monitoring of the ground water consumption.



Location: Langatu Office Area



Location: NTPC Office, Sikri



Location: MDO Canteen, Sikri



Location: MDO Colony, Sikri

Meteorological Station at Langatu Site Office



Navin K. Kumar
 नवीन कुमार / NAVIN KUMAR
 डी.ए. महोदय (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 इन्दौर सी. लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

pH, TDS & EC Meter



Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन सी एन सी (सर्वोच्च प्रवर्ग) / DGM (ENVT. MGMT.)
एन सी एन सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

LIST OF INSTRUMENTS FOR LABORATORY		
Sl. No.	Name	Qty
1	Analytical Balance (3 Digit)	1
2	BOD Incubator	1
3	Muffle Furnace	1
4	Hot Air Oven	1
5	Test Sieves	2
6	Flame Photometer	1
7	Visible Spectro-photometer	1
8	pH Meter	1
9	Water Quality Analyser	1
10	Desiccators	2
11	Centrifuge	1
12	Fume Hood Auto pass	1
13	Hot Plate	2
14	Heating Mantle for COD	3
15	Stirrer (Magnetic)	1
16	Vacuume Pump	1
17	Water Bath	1
18	Digital Thermometer	1
19	Water Distillation Unit	1
20	Jaw Crusher	1
21	Pulveriser	1
22	Beaker (500 ml)	4
23	Beaker (400 ml)	12
24	Beaker (250 ml)	34
25	Beaker (100 ml)	4
26	Beker (50 ml)	8
27	Beker (80ml & 20 ml)	18
28	Beaker (25 ml)	6
29	Burette	6
30	Burette Stand	4
31	Pipette (5 ml, 10 ml, 15 ml, 20 ml)	19
32	Glass rod	10
33	Measuring Cylinder of Different Size	22
34	Reagent Bottle	26
35	Volumetric Flask (1000 ml)	5
36	Volumetric Flask (500 ml)	10
37	Volumetric Flask (250 ml)	19
38	Volumetric Flask (100 ml)	13
39	Volumetric Flask (50 ml)	21
40	Volumetric Flask (25 ml)	7
41	Pippete Stand	3
42	Spatula	1
43	Watch Glass	25
44	Distillation Bottle	3

45	Beaker Tray	3
46	Funnel	20
47	Autoclave	1
48	COD Digester	1
49	Colony Counter	1
50	Measuring Cylinder (1 Ltr)	2
51	Measuring Cylinder (250 ml)	12
52	Measuring Cylinder (100 ml)	3
53	Measuring Cylinder (50 ml)	2
54	Measuring Cylinder (25 ml)	8
55	Measuring Cylinder of Different Size (NEW)	151
56	Conical Flask (1 Ltr)	8
57	Conical Flask (500 ml)	15
58	Conical Flask (250 ml)	8
59	Conical Flask (100 ml)	9
60	COD/BOD bottle	26
61	Reagent Bottle (1 Ltr)	12
62	Reagent Bottle (500 ml)	17
63	Petri dish	18
64	Test Tube (50 ml)	51
65	Test Tube (20 ml)	100
66	Fiblex Ass (500ml)	1
67	Crucible	15
68	Glass Bowl	12
69	Nickel Crucible	12
70	AQ Bottle	50
71	Water Sample Bottle	40
72	Stirrer	2
73	Refrigerator	1
74	FPM Compressor filter	1
75	Colorimeter	1
76	Rack	3
77	Analysis Table	1
78	Office Table	1
79	Office Chair	3
80	Aluminium door	6
81	Name Plate	1
82	Agnet Mixture	1
83	Filter paper	3 Pkt

Navin Kumar



NTPC Limited
P&S Deptt- PB, PB-NW COAL MINING PROJECTS

OFFICE ORDER

Ref. No.1040/2023/P&S/030224

Date: 03.02.2024

The Water and Air Quality Monitoring and Testing for NTPC PBCMP shall be taken up by Chemistry Department wef 03.02.2024. In this regard, a suitable environment laboratory for measurement of environment parameters regarding air and water (surface and ground) quality may be established.

This is being issued on approval by CA.

S. Kar

03.02.2024

(Sanchita Kar)
Sr. Manager (P&S)

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 डी. एम. (एन.टी.एम. / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

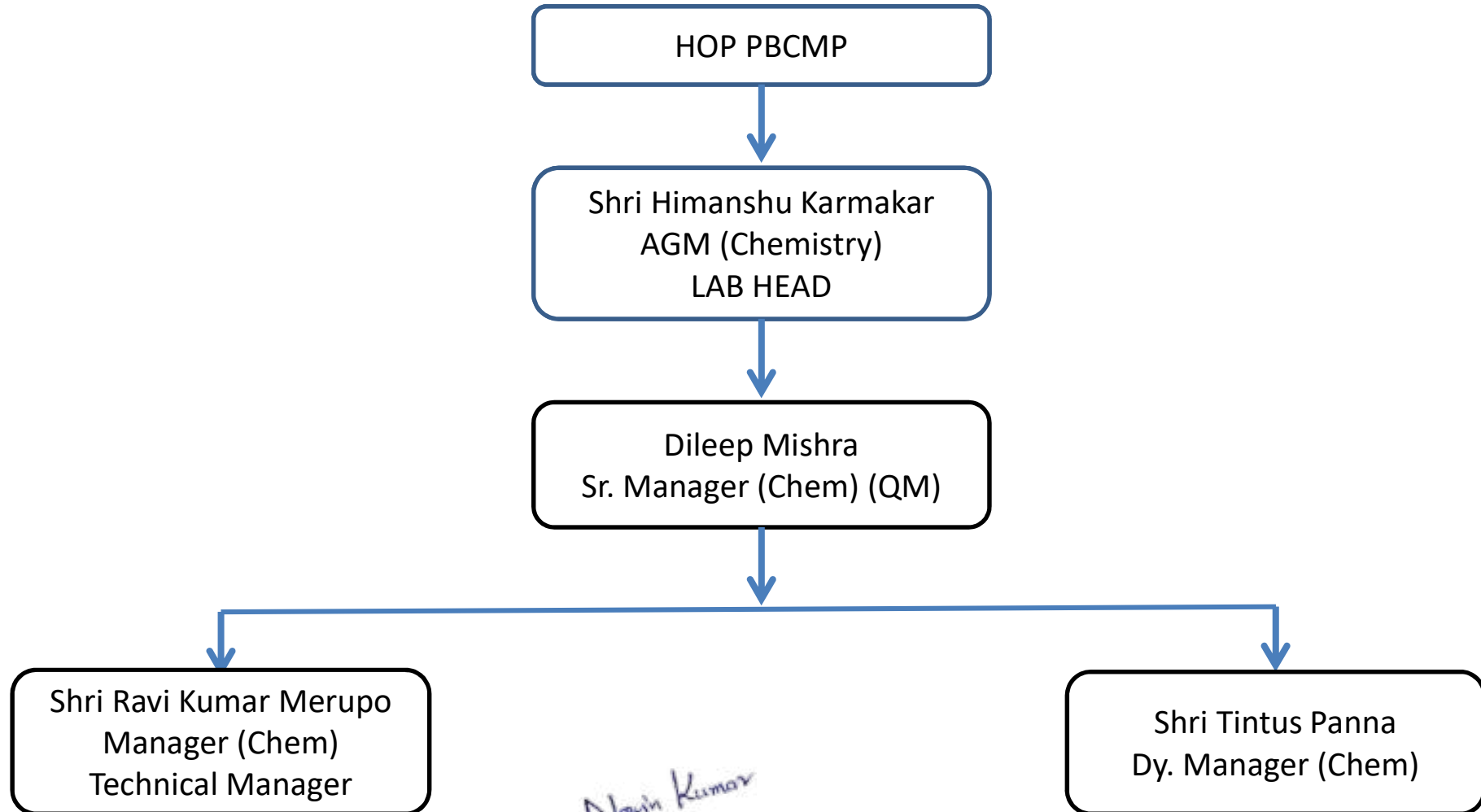
E- Distribution:-

- ES to CGM (PB & PB-NW CMPs) – For kind information pl.
- GM(Infra)
- GM(LA /R&R)
- HoD EMG and HoD Chemistry- For necessary action pl.
- All HODs

ORGANISATION CHART

Chemistry Department

Pakri Barwadih & Pakri Barwadih-North West Coal Mining project



Navin Kumar
नवीन कुमार / NAVIN KUMAR
आयुक्त प्रबंधक (रासायनिक प्रयोगशाला) / OGM (CHEM. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



NTPC Limited

(A Government of India Enterprise)
SSC - Coal Mining(Ranchi)
Dulanga
SUNDERGARH
Odisha- 770001, India
Telephone No. : Fax No. :

Service Purchase Order

CIN No. : L40101DL1975GOI007966

Purchase Order No. : 5500037055-108-1070 **Date** : 09.10.2020 **(version : 0)**

To

Vendor Code : 1101374

THE DIRECTOR CIMFR,DHANBAD RANCHI UNIT
 SAMLONG
 P.O-NAMKUM,DISTRICT-RANCHI
 DHANBAD
 Jharkhand
 India - 834010
 Tel: 06512462237
 Fax: 06512462237
 E-Mail : oicfri@yahoo.co.in

Subject: : Environmental studies related to Pilot Project on OB and Fly-ash mix foreexternal OB dumping at Dulanga Coal Mining Project of NTPC Limited.
NIT NO. : 9900207821/108/1070 Dated 08.09.2020
Your Offer No. : Offer against TE no 9900207821/108/1070 dated 08.09.2020
Your Reference : NIT no 9900207821/108/1070 dated 08.09.2020.

Dear Sir,

This has reference to our above mentioned NIT, Your offer and subsequent discussions. We are pleased to accept your offer opened on 11.09.2020 and confirm having awarded on you the work of Environmental studies related to Pilot Project on OB and Fly-ash mix foreexternal OB dumping at Dulanga Coal Mining Project of NTPC Limited. of total value INR 1,387,000.00 (Rupee THIRTEEN LAKH EIGHTY-SEVEN THOUSAND ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 20.10.2020 to 19.10.2021. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. DGM (Mining) / Mine Manager. shall be EIC for this work.

This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date of this service purchase order. If no communication is received within 15 days of receipt of Purchase Order, it will be treated that order has been accepted in entirety.

We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,
 For & on behalf of NTPC Limited.

P.Prabhakar
 Sr Manager (C&M)

Enclosures :

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 डी.एम. (खन) (सुरक्षा विभाग) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

(Bill of Quantity)**Name of Work:**

Environmental studies related to Pilot Project on OB and Fly-ash mix foreexternal OB dumping at Dulanga Coal Mining Project of NTPC Limited.

SI No.	Code	Description	Unit	Quantity	Net Price	Amount	Long Text
--------	------	-------------	------	----------	-----------	--------	-----------

Delivery/Invoicing Address:

1070 Dulanga Coal Mining Project
Dulanga SUNDERGARH
Odisha
770001
India

Invoicing to be done on

GST No. : 21AAACN0255D1ZA

SI No.	Code	Description	Unit	Quantity	Net Price	Amount	Long Text
10		Environmental Studies	AU	1.000	1,387,000.00	1,387,000.00	

Tax: IN:Integrated GST-ND @ 18.00 % Extra

10 .10		Air Quality Monitoring	NO	9	38,000.0000	342,000.00	YES
10 .20		Water Quality Monitoring	NO	18	23,750.0000	427,500.00	YES
10 .30		Study on leachates	NO	18	23,750.0000	427,500.00	YES
10 .40		Health effect study	NO	1	190,000.0000	190,000.00	YES

TOTAL OF BOQ PART : 00010

INR 1387000.00

Amount**1387000.00**

Other Charges

0.00

Net Amount on BOQ PART : 00010

INR 1387000.00

Net Total Amount

INR 1,387,000.00

Less Rebate/Amount

INR 0.00

Grand Total

INR 1,387,000.00

INR THIRTEEN LAKH EIGHTY-SEVEN THOUSAND ONLY

Navin Kumar

नवः कुमार / NAVIN KUMAR
का मारुतक (गवेषण प्रकलन) / DGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
ओडिसा खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Terms & Conditions

Payment Terms

50% amount shall be paid in advance for initiation of all studies and towards mobilization of necessary resources on part of CIMFR.

30% shall be paid after submission of draft report.

Balance 20% shall be paid after finalization of report. (Note: Finalization of report shall depend upon acceptance of such study reports by the offices of MoEF&CC and SPCB).

Payment Mode

EFT

Invoice to be raised on delivery/invoice address against the given PO line items.

Special Instruction

Terms and Conditions:

a. Award price shall be 'FIRM PRICE' basis.

b. Commencement date of the contract: Indenting dept. may please record the starting date of above contract.

c. Contract Period: The duration envisaged for the studies is over a period of 12 months which is the planned schedule for dump construction. However, it shall be treated to be commensurate with the actual time period for dump construction.

d. GST: GST shall be payable extra at applicable rate.

e. EIC: DGM (Mining) / Mine Manager.

f. Payment Terms:

All payment shall be made directly to the agency against invoice / demand note / proforma invoice.

Payment terms and milestones shall be as follows:

50% amount shall be paid in advance for initiation of all studies and towards mobilization of necessary resources on part of CIMFR.

30% shall be paid after submission of draft report.

Balance 20% shall be paid after finalization of report. (Note: Finalization of report shall depend upon acceptance of such study reports by the offices of MoEF&CC and SPCB).

g. Scope of Work and other terms and conditions shall be as per NIT no 9900207821/108/1070 dated 08.09.2020.

h. In addition to above all other terms and conditions of subject contract shall be governed by NTPC General Condition of Contract.

i. Agency shall execute an agreement with NTPC on non-judicial stamp (applicable value) paper before starting the work as per our proforma. Date of submission of agreement in no way shall change the date of start of work.

Break up of Price (For Service Related Lines Only)

SI No.	Service Code	Description	Qty.	UOM	Rate	Premium	Discount	Addl Discount	Net Rate	Value
10.10		Air Quality Monitoring	9	NO	40,000.00	0.00	0.00	2000.00	38,000.00	342,000.00
10.20		Water Quality Monitoring	18	NO	25,000.00	0.00	0.00	1250.00	23,750.00	427,500.00
10.30		Study on leachates	18	NO	25,000.00	0.00	0.00	1250.00	23,750.00	427,500.00
10.40		Health effect study	1	NO	200,000.00	0.00	0.00	10000.00	190,000.00	190,000.00

Navin Kumar

P.Prabhakar
Sr Manager (C&M)

नवीन कुमार / NAVIN KUMAR
आयुक्त प्रबंधक (पर्यावरण प्रबंधन) / OGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

SCOPE OF WORK

00010 : Environmental Studies

Scope of Work:

The broad scope of work envisages on part of agency to carry out environment related monitoring and studies as stipulated in the permissions accorded by MoEF&CC and State Pollution Control Board for proper compliance.

(i) On part of agency:

- Collection of all primary as well as secondary data for studies.
- Establishing monitoring stations in consultation and in discussion with NTPC.
- Collection of samples from site at frequencies and intervals mentioned at every stages.
- Analysis of samples and generation of reports based on such analysis.
- Preparation of composite report based on comparison and analysis of samples collected at every stage of mixing and dumping.
- Deployment of competent personnel for establishing monitoring stations, sample collection, analysis and preparation of reports.
- Assistance to NTPC (as necessary) for effective compliance to the conditions stipulated in permissions of MoEF&CC and SPCB pertaining to such environmental related studies.
- Any other activity not specifically mentioned above, but important for achieving the overall objective for such studies.

(ii) On part of NTPC:

- To remain associated with personnel of CIMFR during the entire period of study.
- To provide for logistic support to CIMFR personnel deployed at site during their visits.
- Filing of compliance reports with MoEF&CC and SPCB based on reports provided by CIMFR.

OTHER TERMS AND CONDITIONS:

(i) Duration of work:

The duration envisaged for the studies is over a period of 12 months which is the planned schedule for dump construction. However, it shall be treated to be commensurate with the actual time period for dump construction.

(ii) Payment Terms:

- 50% amount shall be paid in advance for initiation of all studies and towards mobilization of necessary resources on part of CIMFR.
- 30% shall be paid after submission of draft report.
- Balance 20% shall be paid after finalization of report.

(Note: Finalization of report shall depend upon acceptance of such study reports by the offices of MoEF&CC and SPCB)

(iii) The agency shall take care of labour related compliances, if applicable, for the manpower deployed by them.

(iv) Insurance cover for men and material deployed by agency shall be taken care of by the agency.

(v) The manpower deployed during visits shall have to compulsorily abide by all the SOPs and COPs in vogue within the mine premises of Dulanga Coal Mining Project of NTPC Limited.

(vi) Finalization of all reports and any changes shall be in consultation with the Engineer in charge of NTPC or its authorized personnel.

(vii) Rates shall remain firm for the entire period of study.

SERVICE SPECIFICATIONS

10.10 - Air Quality Monitoring

Air monitoring at three sites i.e.

- (i) loading site,
- (ii) along the transport rout,
- (iii) nearest village to the dumping site

Frequency of monitoring:

Once from all sampling sites during

- initial stage,
- dumping stage and
- after dump construction

10.20 - Water Quality Monitoring

Water quality monitoring through the following number of stations:

- (i) For Surface Water monitoring : 3
- (ii) For Ground Water monitoring : 3

Number of samples to be collected:

- (i) During initial stage (One sample from all stations as above)
- (ii) During dumping stage (One sample from all stations as above)
- (iii) After dump construction (One sample from all stations as above)

Total number of samples calculated: $6 \times 3 = 18$ numbers

10.30 - Study on leachates

Chemical characterization of flyash and dump materials.

Study on Leachates at every stages:

- (i) Initial stage
- (ii) Dumping stage
- (iii) After dump construction.

for assessing the possible contamination of water resources.

Samples calculated = 18 numbers considering 3 stations each for surface water, ground water and for 3 stages as above.

10.40 - Health effect study

Study on health effect of the local population based on secondary data

Prepared By:

PRABHAKAR P

Navin Kumar

NTPC VENDOR PAYMENT PORTAL & PAYMENT PROCEDURE

1. For all the cases where payment documents are to be directly submitted to NTPC (excluding Payment through Bank cases), the Invoice and supporting document(s) as required in the Purchase Order have to be Digitally Signed with class II or III digital signature and uploaded in the NTPC Vendor Payment Portal <https://pradip.ntpc.co.in/VendorFinal/Login.jsp>.

In such cases, there will be no requirement of physical copy of invoice & documents except for Lorry Receipts (LRs)/ Delivery Challan, which are normally sent along with the material/ transporter. Bank Guarantees to be sent in original wherever applicable.

2. From **15.5.2020**, NTPC will accept only digitally signed Invoice & supporting documents from Vendors for direct payment cases. Submission of documents in physical form shall not be accepted by NTPC unless otherwise asked for in the PO.

For such cases of physical submission, Vendors are required to send complete set of documents including invoice etc. addressed to the "Invoice Receipt Center" of the Delivery/ Invoicing Address as mentioned in the Purchase Order Annexure 1/ BOQ Sheet.

While submitting the Invoice/ Bills & related documents in physical form, Vendors are required to mention the following details on the top of the envelope:

- a. Invoice/Bill reference No.
- b. NTPC PO No./ Package no.
- c. NTPC Vendor Code as per PO

In addition to above, vendors are requested to mention their correspondence E-mail & Mobile No. in the Covering Letter, through which invoice processing related information/clarification request may be sent.

3. Vendors can track / monitor the status of payments from the Vendor payment portal. Help documents are available in the portal. Vendors are requested to make full use of the Vendor Payment Portal.

4. A toll-free helpline (1800 102 5970, operating times 9am to 6 pm to Mon to Sat except Holidays) is also available for help on digital invoice uploading & payment tracking.

5. For payment cases through bank, all original documents are to be submitted in bank as per terms of PO.

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 डी.एम.ए.ओ. (परिचालन प्रभाग) / DGM (ENFT. MGMT.)
 एन.टी.पी.सी. लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

Submission of Certified Compliance Report (CCR) and one-month baseline data on environment quality along the Coal Transportation route of PBCMP, NTPC Limited: Reg.

NAVIN <NAVINKUMAR03@NTPC.CO.IN>

Fri 15/12/2023 21:54

To:lk.bokolia@nic.in <lk.bokolia@nic.in>

Cc:munna.shah@gov.in <munna.shah@gov.in>;TSPAKRI <tspakri@ntpc.co.in>;Sumeet Kumar <SUMEETKUMAR@NTPC.CO.IN>;Birendra Kumar <BIRENDRAKUMAR01@NTPC.CO.IN>; Ketan Kumar <MEWARKETAN@NTPC.CO.IN>;D Shrikhande <DSHRIKHANDE@NTPC.CO.IN>;NeerajJalota <NEERAJJALOTA@NTPC.CO.IN>;VijayPrakash <VIJAYPRAKASH@NTPC.CO.IN>

📎 2 attachments (22 MB)

Cover letter for Submission of CCR & Monitoring Report.pdf; Annexure-1 CCR dated 15.12.2023.pdf;

 [Annexure-2 Environment Base line data PBCMP compressed.pdf](#)

Respected Sir,

While expressing sincere gratitude for granting amendment of EC for coal transportation by road till 31.01.2024 vide amendment letter J-11015/692/2007-IA-II(M) dated 09.11.2023, we hereby submit the following wrt specific conditions mentioned therein:

Specific condition SI No- 1.1: Conditions laid down in amended EC letter dated 16.08.2023 are being implemented and status of the same is mentioned in the Certified Compliance Report of RO, MOEF&CC Ranchi letter no 103-425/pt/1680 dated 15.12.2023 (attached as Annexure-1).

Specific Condition No- 1.2: Certified Compliance Report (CCR) from IRO for the Amendment of Environmental Clearance (EC) dated 16.08.2023 is attached as Annexure-1.

Specific Condition No- 1.3: One-month baseline data on environmental quality – air (PM10, PM2.5, SOx, NOx and heavy metals such as Hg, Pb, Cr, AS, etc), noise, water (surface and groundwater), soil at different location of the existing coal transportation route is attached as Annexure-2.

We humbly wish to submit that NTPC is committed to comply with the statutory conditions/directions issued from your good office time to time and request to kindly consider our submission for extension of timeline for coal transportation by road till 31.12.2024.

Submitted for your kind consideration and favorable order please.

Thanking you.

Navin Kumar
नवा कुमार / NAVIN KUMAR
एन सी ई डी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एन टी पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

सादर / Warm regards,

नवीन कुमार/ Navin Kumar

DGM (Mining), Environment Mgmt.

एनटीपीसी लिमिटेड / NTPC Ltd.

Pakri Barwadih Coal Mining Project,

Sikri Site Office, Barkagaon,

Hazaribagh 825301 (Jharkhand)

मोबाइल / Mobile 9470197223 / 7004012892



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सीईओ (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

EC J-11015/692/2007-IA-II(M): Submission of monthly progress report (April 2024) of conveyor belt and silo loading system at Pakri Barwadih Coal Mines Project (PBCMP) of NTPC Mining Limited.

EMG_PBCMP <emg_pbcmp@ntpc.co.in>

Mon 06/05/2024 12:52

To:ROR MoEFCC <ro.ranchi-mef@gov.in>

Cc:TSPAKRI <tspakri@ntpc.co.in>;env-pb@ntpcmining.co.in <env-pb@ntpcmining.co.in>;Upendra Kumar Pandit <UPENDRAKUMARPANDIT@NTPC.CO.IN>;NAVIN <NAVINKUMAR03@NTPC.CO.IN>;Birendra Kumar <BIRENDRAKUMAR01@NTPC.CO.IN>;Faiz Taiyab <FAIZTAIYAB@NTPC.CO.IN>

📎 1 attachments (1 MB)

D.No.-79, Date-03.05.2024 RLS status report dated 03.05.2024.pdf;

Dear Sir,

With reference to the specific condition no. 1.1 of the EC Amendment letter dated 15.01.2024, we hereby submit the monthly progress report of conveyor belt and silo loading system (Silo Rapid Loading System) as on 31.03.2024 at Pakri Barwadih Coal Mines Project (PBCMP) of NTPC Mining Limited.

This is for your kind consideration please.

सादर / Warm regards,

नवीन कुमार/ Navin Kumar
DGM (Mining), Environment Mgmt.
एनटीपीसी माइनिंग लिमिटेड / NTPC Mining Ltd.
Pakri Barwadih Coal Mining Project,
Sikri Site Office, Barkagaon,
Hazaribagh 825301 (Jharkhand)
मोबाइल / Mobile 9470197223 / 7004012892



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एमएलएम (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



NTPC Limited

(A Government of India Enterprise)

SSC - Coal Mining(Ranchi)

Sikri Site Office, P.O. Barkaga

Hazaribag - JHARKHAND

Jharkhand- 825311, India

Telephone No. : 06546-270808/267808 Fax No. : 06546270808

Service Purchase Order

PAN No. : AAACN0255D

CIN No. : L40101DL1975GOI007966

Purchase Order No. : 4000331821-108-1040 **Date :** 24.04.2024 **(version : 0)**

To

MinMec Consultancy Private Limited

IGNOU Road

A-121, Paryavaran Complex

NewDelhi

Delhi

India - 110030

Tel: 01129534777

Fax: 01129532568

E-Mail : minmec@gmail.com

Vendor Code : 1020237

Subject: : Consultancy Package for Traffic density study for amendment of Environment Clearance (EC) accorded to PBCMP for extension in timeline for transportation of coal by road from 01.08.2024 onwards and collection of one-month base line data for the coal transportation road.

NIT NO. : 9900278761 Dated

Your Offer No. : Your online offer opened on 19.04.2024.

Your Reference : GePNIC Tender ID 2024_NTPC_86142_1 dated 18.04.2024 / SAP Collective No. 9900278761

Dear Sir,

This has reference to our above mentioned NIT, Your offer and subsequent discussions. We are pleased to accept your offer opened on and confirm having awarded on you the work of Consultancy Package for Traffic density study for amendment of Environment Clearance (EC) accorded to PBCMP for extension in timeline for transportation of coal by road from 01.08.2024 onwards and collection of one-month base line data for the coal transportation road. of total value INR 975,000.00 (Rupee NINE LAKH SEVENTY-FIVE THOUSAND ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 25.04.2024 to 24.07.2024. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. DGM (Env. Mgmt.), PBCMP shall be EIC for this work.

This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date of this service purchase order. If no communication is received within 15 days of receipt of Purchase Order, it will be treated that order has been accepted in entirety.

We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,

For & on behalf of NTPC Limited.

DGM(C&M)

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 एन टी पी सी लिमिटेड (एनटीपीसी लिमिटेड) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Enclosures :

(Bill of Quantity)

Name of Work:

Consultancy Package for Traffic density study for amendment of Environment Clearance (EC) accorded to PBCMP for extension in timeline for transportation of coal by road from 01.08.2024 onwards and collection of one-month base line data for the coal transportation road.

SI No.	Code	Description	Unit	Quantity	Net Price	Amount	Long Text
--------	------	-------------	------	----------	-----------	--------	-----------

Delivery/Invoicing Address:

1040 Pakri Barwadiah CMP
 Sikri Site Office, P.O. Barkaga Hazaribag - JHARKHAND
 Jharkhand
 825311
 India
 06546-270808/267808
 06546270808
 Invoicing to be done on
GST No. : 20AAACN0255D1ZC

10		EC amendment of PBCMP & Data collection	AU	1.000	975,000.00	975,000.00	
----	--	---	----	-------	------------	------------	--

Tax: IN:Integrated GST-ND @ 18.00 % Extra

10 .10		EC amendment of PBCMP & Data collection	LPS	1	975,000.0000	975,000.00	YES
--------	--	---	-----	---	--------------	------------	-----

TOTAL OF BOQ PART : 00010 INR 975000.00

Amount 975000.00
 Other Charges 0.00

Net Amount on BOQ PART : 00010 INR 975000.00

Net Total Amount INR 975,000.00
 Less Rebate/Amount INR 0.00
 Grand Total INR 975,000.00
 INR NINE LAKH SEVENTY-FIVE THOUSAND ONLY

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Terms & Conditions

Payment Terms

- 1) 25% of PO value will be released on mobilization/ deployment of resources (manpower & machine) at site.
- 2) 25% of PO value will be released on submission of final traffic study report and base line report as per specific condition no. 1.3 of EC amendment dated 15.01.2024.
- 3) 25% of PO value will be released on submission of proposal in PARIVESH Portal and presentation before EAC, acceptance and recommendation of proposal for EC amendment by EAC meeting.
- 4) Balance 25% payment will be released on amendment of EC by MoEF&CC.

Payment Mode

EFT

Invoice to be raised on delivery/invoice address against the given PO line items.

Special Instruction

1. Total Order Value : Rs. 9,75,000/-
2. Taxes GST 18% extra as applicable.
3. Contract Period : Three (03) Months
4. Price Basis : Fixed Price
5. PBG / Security Deposit 5% of Contract Price, applicable as per GCC
6. Defects Liability Period : Nil
7. Quantity variation : As per GCC
8. LD clause : As per GCC
9. Payment terms
 - 1) 25% of PO value will be released on mobilization/ deployment of resources (manpower & machine) at site.
 - 2) 25% of PO value will be released on submission of final traffic study report and base line report as per specific condition no. 1.3 of EC amendment dated 15.01.2024.
 - 3) 25% of PO value will be released on submission of proposal in PARIVESH Portal and presentation before EAC, acceptance and recommendation of proposal for EC amendment by EAC meeting.
 - 4) Balance 25% payment will be released on amendment of EC by MoEF&CC.
10. EIC : DGM (Env. Mgmt.), PBCMP
11. Signing of Contract Agreement : The Agency shall execute contract agreement with NTPC on appropriate value of non-judicial stamp paper within one month from the date of letter of award.
12. TDS : Tax deduction shall be done as per relevant Acts / Rules
13. Other conditions : All other terms and conditions shall be as per the provisions of Bidding documents.

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 सय महसुसक (पर्यावरण प्रबन्धन) / DGM (ENV. MGMT.)
 इन्टोपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Break up of Price (For Service Related Lines Only)

SI No.	Service Code	Description	Qty.	UOM	Rate	Premium	Discount	Addl Discount	Net Rate	Value
10.10		EC amendment of PBCMP & Data collection	1	LPS	975,000.00	0.00	0.00	0.00	975,000.000	975,000.00

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 डीएम (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

SERVICE SPECIFICATIONS
-----**10.10 - EC amendment of PBCMP & Data collection**

Consultancy Package for Traffic density study for amendment of Environment Clearance (EC) accorded to PBCMP for extension in timeline for transportation of coal by road from 01.08.2024 onwards and collection of one-month base line data for the coal transportation road.

Prepared By:
DHEERENDRA MISHRA

Navin Kumar
नवीन कुमार / NAVIN KUMAR
ज्य. सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

List of Documents

Please note that below documents are needed to be provided along with Invoice.

S.No.	Document Description
1	Invoice

Navin Kumar

नवा कुमार / NAVIN KUMAR
एन डीएम प्रोजेक्ट्स (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

NTPC VENDOR PAYMENT PORTAL & PAYMENT PROCEDURE

1. For all the cases where payment documents are to be directly submitted to NTPC (excluding Payment through Bank cases), the Invoice and supporting document(s) as required in the Purchase Order have to be Digitally Signed with class II or III digital signature and uploaded in the **&gv_cocd&** Vendor Payment Portal <https://pradip.ntpc.co.in/VendorFinal/Login.jsp>.

In such cases, there will be no requirement of physical copy of invoice & documents except for Lorry Receipts (LRs)/ Delivery Challan, which are normally sent along with the material/ transporter. Bank Guarantees to be sent in original wherever applicable.

2. From 01.01.2020, NTPC will accept only digitally signed Invoice & supporting documents from Vendors for direct payment cases. Submission of documents in physical form shall not be accepted by NTPC unless otherwise asked for in the PO.

For such cases of physical submission, Vendors are required to send complete set of documents including invoice etc. addressed to the "Invoice Receipt Center" of the Delivery/ Invoicing Address as mentioned in the Purchase Order Annexure 1/ BOQ Sheet.

While submitting the Invoice/ Bills & related documents in physical form, Vendors are required to mention the following details on the top of the envelope:

- a. Invoice/Bill reference No.
- b. **NTPC PO No./ Package no.**
- c. **NTPC Vendor Code as per PO**

In addition to above, vendors are requested to mention their correspondence E-mail & Mobile No. in the Covering Letter, through which invoice processing related information/clarification request may be sent.

3. Vendors can track / monitor the status of payments from the Vendor payment portal. Help documents are available in the portal. Vendors are requested to make full use of the Vendor Payment Portal.

4. For payment cases through bank, all original documents are to be submitted in bank as per terms of PO.

Alternate Mode of Payment for Micro Small & Medium Enterprises (MSMEs):

Trade Receivables Discounting System (TReDS) is a regulatory framework put in place by the Reserve Bank of India under the Payment and Settlement Systems Act 2007 (PSS Act) to facilitate the financing of trade receivables (invoices) of MSMEs through invoice financing by multiple financiers.

The Reserve Bank of India has granted approval to Mynd Solutions Pvt Limited, A.TREDS Ltd and Receivables Exchange of India Ltd (RXIL) to set up and operate TReDS platforms. The Respective TReDS platforms names of the above-mentioned entities are M1xchange, Invoicemart and TREDS.

Currently NTPC Limited is transacting with M1xchange and RXIL TReDS platforms. MSME Vendors may choose the TReDS platforms as an alternate payment mechanism.

For queries/ details, the vendor may directly contact M1xchange or RXIL at:-

M1XCHANGE:-

URL: <https://m1xchange.com>
Toll free No.: 1800-103-7261

RXIL:-

URL: <https://www.rxil.in/Home/Index>
Phone: 022-40771424, 40771426
Toll free No.: 1800 1038 311

Vendor must ensure the delivery of material and service before uploading invoices at TReDS portal for discounting. After uploading invoices on TReDS portal, vendor has to upload invoices on NTPC payment portal in case of Non-GeM contract and in case of GeM Contract invoices shall be uploaded on GeM portal, immediately . All relevant documents required for processing of payments as per P.O/Contract terms and conditions shall be made available by the Vendor along with the invoice.

Navin Kumar

नवीन कुमार / NAVIN KUMAR
रक्षा प्रशासनिक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
(एनटीपीसी लिमिटेड) / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

PHOTOGRAPH OF MONITORING

Latitude
 23° 53' 6.624" N
 Longitude
 85° 14' 0.684" E

Local	12:08:34 PM
GMT	06:38:34 AM
Altitude	430 meters
Date	Mon, 15 Apr 2024

Unnamed Road, Pakri Barwadih, Jharkhand 825302, India

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 डी.सी.ए. (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag



Latitude	Local	12:00:32 PM
23° 53' 6.84" N	GMT	06:30:32 AM
Longitude	Altitude	429 meters
85° 13' 59.52" E	Date	Mon, 15 Apr 2024

Unnamed Road, Pakri Barwadih, Jharkhand 825302, India

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी लिमिटेड (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Latitude
23° 50' 45.02652" N
Longitude
85° 14' 7.9206" E

Local	01:29:10 PM
GMT	07:59:10 AM
Altitude	403 meters
Date	Tue, 16 Apr 2024

Unnamed Road, Jharkhand 825311, India

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी लिमिटेड (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
सहायक निदेशक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
शोधन उपकरण परियोजनाएँ / DQAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवनील कुमार / NAVIN KUMAR
एन एम डी प्रोजेक्ट्स (एनवायटमेंट प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एन्वयटिडि (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



भा वा अ शि प - वन उत्पादकता संस्थान
(भारतीय सांख्यिकी अनुसंधान एवं शिक्षा परिषद)

एन.टी.पी.सी. बरवाडीह कोयला खदानों के लिए वृक्षारोपण
लेखापरीक्षा का संचालन के संबंध में। (एन.टी.पी.सी. बरवाडीह कोयला खदानों के लिए वृक्षारोपण
लेखापरीक्षा का संचालन के संबंध में।)

ICFRE - INSTITUTE OF FOREST PRODUCTIVITY

(Indian Council of Forestry Research & Education)

(An Autonomous Body of the Ministry of Environment, Forest and Climate Change, Govt. of India)

Lalgatwa/Gandla Road, N.H.-23, Ranchi-835303 (Jharkhand)

Email: dr_yogeshwar@icfre.org, dr_yogeshwar2018@gmail.com

Website: www.icfre.gov.in



Phone: 0358-2205140
2205150

File No. IFP/RCS/VIII/679/NTPC/2024-25/ 164

दिनांक/ Dated: 26.04.2024

प्रति/To,

श्रीमान वरिष्ठ प्रबंधक महोदय/The Senior Manager
त्रिवेणी सैनिक माइनिंग प्राइवेट लिमिटेड /Triveni Sainik Mining Private Limited
बड़कागांव/ Barkagaon
जिला/Dist- हजारीबाग/Hazaribag
झारखंड/Jharkhand
E. Mail: hkr@thrivenisainik.com

विषय: बड़कागांव, हजारीबाग, झारखंड स्थित एन.टी.पी.सी.-पकरी बरवाडीह कोयला खदानों के लिए वृक्षारोपण
लेखापरीक्षा का संचालन के संबंध में/ Conduct of plantation Audit for NTPC-Pakri Barwadih Coal Mines
located at Barkagaon, Hazaribagh, Jharkhand-reg.

संदर्भ/ Ref: आपका ईमेल 03.04.2024 & पत्र सं -1SMPL/SC/WO/ENVT/ICFRE/23-24/04 दिनांक :01.04.2024

महोदय/Sir,

With reference to the above cited subject, ICFRE- Institute of Forest Productivity, Ranchi agreed to accept consultancy services to Conduct Plantation Audit for NTPC-Pakri Barwadih Coal Mines located at Barkagaon, Hazaribagh, Jharkhand. We are enclosing required information for earliest transfer of funds.

यह आपके अवलोकन और जानकारी के लिए प्रस्तुत।

This is for your kind information & necessary action.

सधन्यवाद / Thank you.

आपका विश्वासी/ Yours faithfully,

(योगेश्वर मिश्रा / Yogeshwar Mishra)
समूह समन्वयक (अनुसंधान)
Group Coordinator (Research)

संलग्न/Encl: ऊपरलिखित/ As above

Navin Kumar

नवा - कुमार / NAVIN KUMAR
एन.टी.पी.सी. (कोयला खदान प्रबंधन) / DGM (ENVT. MGMT.)
एन.टी.पी.सी. लिमिटेड / NTPC Limited
कोयला खदान परियोजनाएं / COAL MINING PROJECTS
हजारीबाग / Hazaribag

THRIVENI SAINIK MINING PRIVATE LIMITED

C/o. NTPC Ltd., Langatu

P.O.: Barkagaon, Dist - Hazaribag-825311, Jharkhand, India

Phone: 06546-223115, Email: info@thrivenisainik.com



WORK ORDER

Ref.No: TSMPL/SC/WO/ENV/ICFRE/23-24/04

Date: 01.04.2024

To,
M/s. ICFRE-INSTITUTE OF FOREST PRODUCTIVITY
Lalgutwa, Gumla Road, N.H-23,
Ranchi, JHARKHAND-835303
Ph: 6260057051

Sub: Professional Consultancy service for audit of densification and assess efficiency of existing plantation at Pakri Barwadh Coal Mining Project NTPC (PBCMP) situated at Barkagaon, Hazaribagh, Jharkhand.

Ref: Letter No: - VIII-RCS-248/2010-2011 (P-VI)/1907, dated: 20.02.2024 and mail dated 20.02.2024 @ 5:22 PM.

Kind. Attn: - Dr. Yogeshwar Mishra, Group Coordinator (Research)

Dear Sir,

With reference to the above, we are pleased to entrust this formal order on the subject to you with the scope, deliverables, and conditions as stipulated hereunder. Henceforth **ICFRE-Institute of Forest Productivity** is called as 'Consultant' and **M/s Thriveni Sainik Mining Pvt. Ltd.** is called 'TSMPL'.

1. SCOPE OF WORK

The scope of services for carrying out the "Audit of densification of existing plantation as per the Specific Condition No. - 1.4 of Environmental clearance amendment, Dated- 15.01.2024 of PBCMP (The plantations done by the PP need to be adequately densified and audited by a third party preferably a forestry institution of MoEF & CC (e.g. ICFRE) to assess their efficacy. Densification of existing plantations shall also be done during the monsoon of 2024) for the Pakri Barwadh Coal Mining Project, NTPC LTD.

- 1.1. Evaluation of physical condition, verification and quantity value of plantation by engaging competent person to accompany the visiting team and providing workmen to help the visiting team.
- 1.2. The Consultant shall ensure that the above-mentioned Services to be rendered as per this agreement are performed:
 - 1.2.1. Strictly as per the agreed time schedule.
 - 1.2.2. In accordance with the terms of this Agreement
 - 1.2.3. At all stages of report - formal developments shall be intimated to TSMPL.
 - 1.2.4. Time is the essence of the contract and the consultant shall adhere to the timelines mentioned/agreed upon.
- 1.3. **Quality:** The Consultant shall ensure that its Services/work shall be carried out in line with highest professional standards.
- 1.4. The Consultant shall take note of the observations and suggestions made by TSMPL & NTPC and ensure corrections of suggestions/recommendations in the work pointed out by TSMPL & NTPC at any time while providing the services.
- 1.5. The Consultant shall take responsible of any quarry raised by any Govt. Authority at any time.
- 1.6. **Report Submission:** The Consultant shall ensure that final report (soft & hard copy) need to be submitted within the validity period.

नवीन कुमार / Neeraj Kumar
Regional Office: 7th Floor, Corporate Towers Ambience Mall, NH-8, Gurgaon - 122002, Haryana, India

Phone: 0124-2719000, Fax: 0124-271900, Email: ho@thrivenisainik.com, Web: www.thrivenisainik.com

एनटीपीसी लिमिटेड / NTPC Limited

CIN: U74900HR2015PTC057396

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

2. RATE/ORDER VALUE

2.1. The Rate/Price shown in the below mention tabular column excluding of GST as applicable

S.No	Description	Unit	Rate/Unit
1	Evaluation of physical condition, verification and quantity value of Plantation	Ha	Rs. 17,777.78/- (Rupees Seventeen Thousand Seven Hundred Seventy-Seven and Seventy-Eight Paise Only)
2	Evaluation of physical condition, verification and quantity value of line plantation along with roads, canals and etc.,	km	Rs. 4,000/- (Rupees Four Thousand Only)
3	Institutional Charge Extra @ 10% on Total Amount		

- 2.2. Prices are Firm and binding and No escalation is admissible/tenable throughout the Contract duration, except for a change in statutory duties, levies, taxes, etc.
- 2.3. Evaluation of physical condition, verification and quantity value of Plantation Rs. 17,777.78/- (10% of the total Plantation will be undertake to evaluation for plantation).
- 2.4. Payment will be done only by Cheque, E-Payment, or Demand Draft; in the case of E-Payment and Demand Drafts; the bank charges will be deducted. The 'Supplier' or the duly authorized representative may collect the payment details on behalf of the 'Supplier'. At the time of the release of payment, the 'Supplier' should produce valid documents whichever is applicable and called for by TSMPL.
- 2.5. TAXES: Payment to SUPPLIER shall subject to deduction of Tax at source as applicable as per statute. Any Taxes, Duties and payable to State/Central Government, local bodies are to be borne by the Supplier. GST shall be levied on all service provided by the Supplier added extra as applicable.
- 2.6. The Consultant shall settle and clear all the outstanding liabilities before the payment for bills every month

3. VALIDITY / TERMINATION:

- 3.1. Effective date of Contract: 01.04.2024 (Date of the Work Order).
- 3.2. Contract Validity period: 01.04.2024 to 31.10.2024
- 3.3. The Contract can be foreclosed by serving an advance notice of 7 days from either side; No compensation will be payable to the " for the said termination/foreclosure.
- 3.4. Upon such foreclosure, the Consultant shall be paid the fees for the Work completed till such date and all the study reports/documentation in this regard, shall be duly handed over to TSMPL; the same shall remain the property of TSMPL and cannot be reproduced without prior written consent of TSMPL
- 3.5. If the Contract gets terminated due to: a) any statutory non-compliance(s) and/or b) breach of Contract conditions attributable to the 'Consultant', the notice period will not be applicable.

4. PAYMENT TERMS

- 4.1. Invoice(s): The Supplier, shall raise invoice(s) in 1 set in original + 02 set copies.
- 4.2. Payment Frequency: 60% on submission of Performa Invoice, 20% on submission of the draft report and balance 20% on acceptance of final report.
- 4.3. Taxes: GST extra as applicable.

Navin Kumar
नवीन कुमार / NAVIN KUMAR
 एन एनटीपीसी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

4.4. Figures as per undisputed invoice only will be taken up for payment.

4.5. **Billing address:** Thriveni Sainik Mining Pvt Ltd, Barkagaon, Langatu-825311

5. GENERAL TERMS AND CONDITIONS:

- 5.1. The rates of Contract shall be firm and no escalation will be considered during the execution of Work Order.
- 5.2. All statutory deductions such as income tax (existing rate 1.00% or 2.00%) as per Govt norms which ever are applicable from time to time will be deducted from the gross amount payable based on the bills.
- 5.3. At the time of commencement of the work the Supplier shall submit Xerox copies of the latest insurance policy, invoices, and the fitness certificate of the Machine to be used in executing the work and also copies of PAN card, Bank details, GST details and other if any.
- 5.4. Stick to follow our companies "Standard Operating Procedures" (SOPs) and other statutory acts, Laws, Rules, and Norms as amended from time to time and as when applicable.
- 5.5. TAXES: Payment to Supplier shall subject to deduction of Tax at source as applicable as per statute. Any Taxes, Duties, and payable to State/Central Government, local bodies are to be borne by the 'Service Provider'.

6. INDEMNITY

- 6.1. The Consultant shall indemnify TSMPL against all losses and damages caused through the acts of the Consultant or violation of any terms of this Agreement.
- 6.2. Notwithstanding anything contained herein to the contrary, neither party shall be liable to another party for any special, consequential, or indirect loss or damage including, any loss of profits or revenue, and each party hereby releases the other there from.

7. INTELLECTUAL PROPERTY RIGHTS

All copyrights, design rights or patents in all drawings, reports, specifications, calculations and other documents supplied or produced by the Consultant ("the Intellectual Properties") shall belong to TSMPL, subject to the condition that TSMPL shall pay the professional fees as per relevant clause of this Agreement for the completed level of service. In the case of early termination of this Agreement, TSMPL shall have the exclusive proprietary right for the partially completed set of documents without any restriction. TSMPL shall at all times be at its liberty to continue with the Project/partial completed set of documents either by itself or by appointing any third-party consultants. However, the documents provided by consultant is required to be used by TSMPL for other purpose which is not related to the project under consideration here, then written approval shall be taken from consultant for usage.

8. FORCE MAJEURE

TSMPL and the Consultant shall not be liable for any failure to perform or delay in performing its obligation under this Agreement, when and to extent that such failure or delay is due to force majeure. The term "force majeure" shall include, but not limited to accidents, strikes, lockouts, fires, floods, whether similar or dissimilar to those enumerated, acts of God or the public enemy, embargoes, wars (declared or undeclared), riots, civil commotion, interference by civil or military authorities, terrorist acts, Government actions, order(s) or request(s), including (without limitation) the refusal of any Government to grant any necessary export or import license, certification, clearance or other document, mechanical failure or other, failures of material or any other cause or contingency beyond the control of TSMPL and the Consultant.

9. CONFIDENTIALITY

- 9.1. The Consultant shall always keep confidential the contents of this Agreement and will not make any disclosure of the existence of this Agreement or any terms of this Agreement without the consent of the TSMPL unless required by law.
- 9.2. The Consultant agrees to promptly return all Confidential Information and copies thereof, that is documentarily altered or copied, or changed in any way within 10 (ten) days from the written request of TSMPL or on the completion of the Services.

10. DISPUTE RESOLUTION

- 10.1. 'Consultant' and TSMPL shall meet at such time and place and in such manner as may be agreed, to resolve in an amicable, efficient, and effective manner any dispute which may arise from time to time in connection with this Work-Order. The disputing party shall notify the other formally with a written dispute notice describing the nature of dispute, claims and etc.
- 10.2. Both parties shall discuss mutually and try to resolve the matter within 30 days from the date of dispute notice. If unable to resolve the matter in 30 days, the dispute can be referred to Arbitration.

11. ARBITRATION

- 11.1. If at any time dispute arises between TSMPL and the 'Consultant' in course of operation of this Work-Order the dispute shall be referred to 3 arbitrators, one from each side under the provision of Arbitration & Conciliation Act 1996 and later amendments if any. The nominated arbitrators shall appoint a chairman arbitrator.
- 11.2. The arbitration proceeding shall be held at Ranchi District in the State of Jharkhand under the Jurisdiction of Court of Law of State Jharkhand. For all-purpose and the legal dispute will be under the jurisdiction of the Court of Law at Ranchi, Hazaribagh, Jharkhand.

Thanking you,
Yours Truly,

For M/s. THRIVENI SAINIK MINING PRIVATE LIMITED

Authorized Signatory



I / We have read the above Work Order and terms & condition mentioned in Annexures to the Work Order and hereby confirms that we will abide by the same.

For M/s. ICFRE-INSTITUTE OF FOREST PRODUCTIVITY

Authorized Signatory

Navin Kumar
नवा- कुमार / NAVIN KUMAR
एन वल्लभरठ (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag

EC Letter no. J-11015/692/2007-IA-II(M): Issue of Certified Compliance Report w.r.t Environmental Clearance accorded to Pakri Barwadih Coal Mining Project of NTPC Ltd. for Peak Rated Capacity (PRC) of 18 MTPA - Reg.

EMG_PBCMP <emg_pbcmp@ntpc.co.in>

Fri 12/04/2024 15:20

To:ROR MoEFCC <ro.ranchi-mef@gov.in>

Cc:TSPAKRI <tspakri@ntpc.co.in>;Upendra Kumar Pandit <UPENDRAKUMARPANDIT@NTPC.CO.IN>;NAVIN <NAVINKUMAR03@NTPC.CO.IN>;Birendra Kumar <BIRENDRAKUMAR01@NTPC.CO.IN>;NeerajJalota <NEERAJJALOTA@NTPC.CO.IN>

📎 1 attachments (5 MB)

D.No.-71, Date-12.04.2024 To DDGF MoEF, Ranchi regarding Issue of CCR w.r.t. EC accorded to PBCMP.pdf;

Respected Sir,

Pakri Barwadih Coal Mining Project of NTPC Ltd in Hazaribagh district of Jharkhand has been accorded Environment Clearance by MoEF&CC for a Peak Rated Capacity (PRC) of 18 MTPA within an area of 3319.42 Ha vide Letter No. **J-11015/692/2007-IA-II(M) dated 06.03.2024 with transportation of coal by road till 31.07.2024.**

It is submitted that Hon'ble Supreme Court has extended the timeline to complete the belt conveyor till 31.12.2024 by an order dated 29.01.2024 in the matter of Miscellaneous Application No. 1824/2023 in C.A. No. 6249/2021, NTPC Versus Tripurari Singh and Others (copy of the order is attached).

It is further submitted that the complete construction of belt conveyor and operation of the same shall only be possible by 31.12.2024, accordingly, further amendment in EC shall be required to transport coal by road after 31.07.2024.

As per Sp. Condition no. 1.1 of EC amendment dated 15.01.2024 (copy attached) monthly progress report of Rapid Loading System (a part of belt conveyor system) is being submitted monthly to your good office. Monthly progress report of Rapid Loading System as on 31.03.2024 has been submitted vide our letter no.- **1040/PBCMP/EMG/2024/F-47/70 Date: 12.04.2024.**

As per specific condition no.- 1.5 of EC amendment dated 15.01.2024, the Certified Compliance Report (CCR) from RO, MOEF&CC is required to be submitted with application for amendment in EC.

In this regard, it is requested to your good office for issuance of the CCR w.r.t the Environmental Clearance accorded to Pakri Barwadih Coal Mining Project of NTPC Ltd. for onward submission during EC amendment application.

Submitted for your kind consideration please.

Thanking You.

सादर / Warm regards,

नवीन कुमार/ Navin Kumar
DGM (Mining), Environment Mgmt.
एनटीपीसी लिमिटेड / NTPC Ltd.
Pakri Barwadih Coal Mining Project,

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सी ई डी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

Sikri Site Office, Barkagaon,
Hazaribagh 825301 (Jharkhand)
मोबाइल / Mobile 9470197223 / 7004012892



Navin Kumar
नवा - कुमार / NAVIN KUMAR
एन वलरुवक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



Event Report

Date/Time Vert at 14:12:38 October 20, 2023
 Trigger Source Geo: 0.610 mm/s
 Range Geo: 254.0 mm/s
 Record Time 4.0 sec at 1024 sps

Serial Number BE20626 V 10.72-1.1 Minimate Blaster
 Battery Level 6.2 Volts
 Unit Calibration January 18, 2023 by UES New Delhi
 File Name V626K8ZO.T20
 Post Event Notes
 At Near Urub Village 295 Mt From Blasting Patch

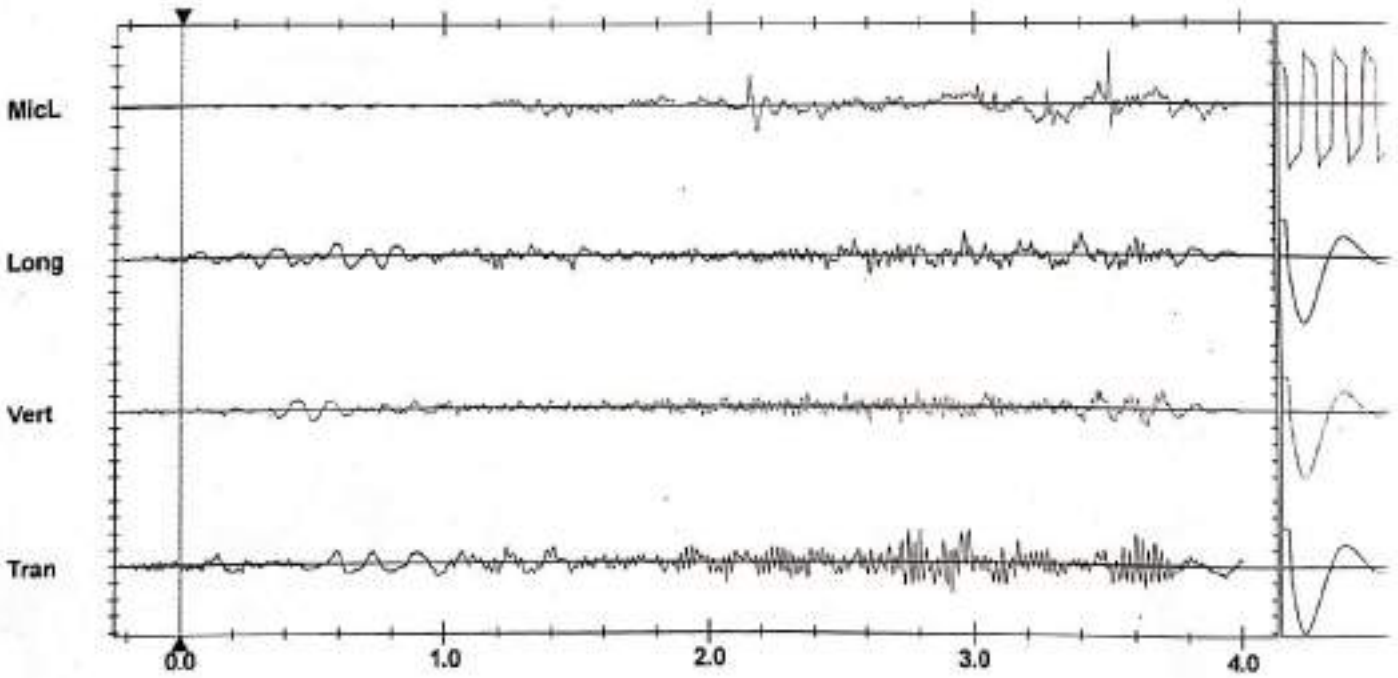
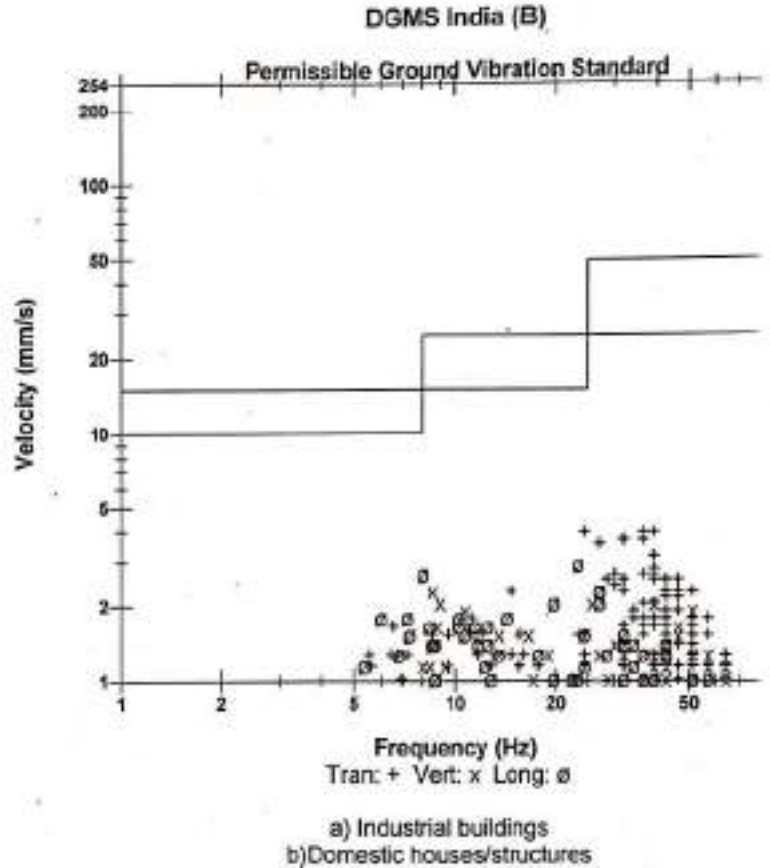
Notes
 Location: On ground surface
 Client: Pakri Barwadih Coal Mines Western Quarry
 User Name: Black Diamond Explosives Pvt Ltd
 General:

Extended Notes

Microphone Linear Weighting
 PSPL 122.4 dB(L) at 3.505 sec
 ZC Freq 5.2 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 475 mv)

	Tran	Vert	Long	
PPV	3.937	2.286	2.921	mm/s
PPV	62.90	58.18	60.31	dB
ZC Freq	37	8.5	23	Hz
Time (Rel. to Trig)	2.755	3.650	2.966	sec
Peak Acceleration	0.106	0.053	0.053	g
Peak Displacement	0.037	0.033	0.041	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.7	7.5	Hz
Overswing Ratio	3.2	3.5	3.3	

Peak Vector Sum 4.133 mm/s at 2.801 sec



Printed: November 8, 2023 (V 10.72 - 10.72)
 नवा कुमार / NAVIN KUMAR
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Date/Time: Long at 14:09:14 October 31, 2023
 Trigger Source: Geo: 0.610 mm/s
 Range: Geo: 254.0 mm/s
 Record Time: 4.0 sec at 1024 sps

Serial Number: BE20626 V 10.72-1.1 Minimate Blaster
 Battery Level: 6.2 Volts
 Unit Calibration: January 18, 2023 by UES New Delhi
 File Name: V626K9K1.ZE0
 Post Event Notes: At Near Nagari School 295 Mt From Blasting patch

Notes

Location: On ground surface
 Client: Pakri Barwadith Coal Mines Western Quarry
 User Name: Black Diamond Explosives Pvt Ltd
 General:

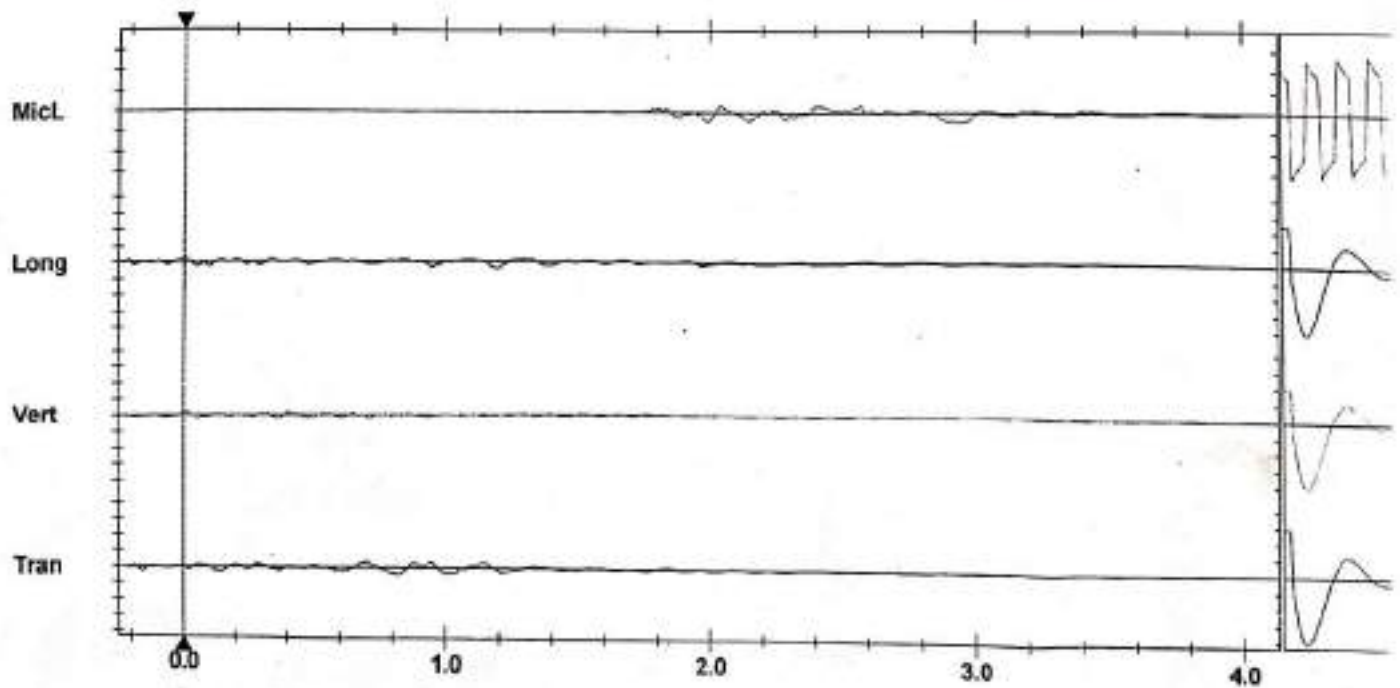
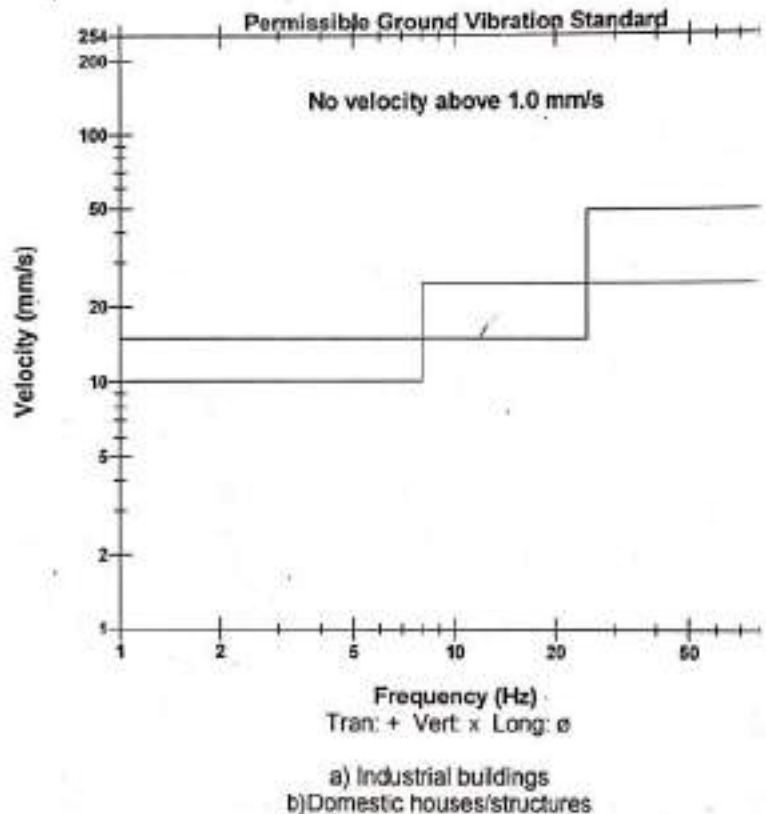
Extended Notes

Microphone: Linear Weighting
 PSPL: 107.5 dB(L) at 2.938 sec
 ZC Freq: 3.2 Hz
 Channel Test: Passed (Freq = 19.7 Hz Amp = 492 mv)

	Tran	Vert	Long	
PPV	0.889	0.508	0.889	mm/s
PPV	49.98	45.12	49.98	dB
ZC Freq	6.3	9.5	7.2	Hz
Time (Rel. to Trig)	0.817	0.050	1.188	sec
Peak Acceleration	0.027	0.027	0.027	g
Peak Displacement	0.022	0.008	0.018	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.6	7.6	Hz
Overswing Ratio	3.2	3.5	3.3	

Peak Vector Sum: 0.976 mm/s at 0.824 sec

DGMS India (B)



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa. (L)/div

Sensor Ch

Printed: November 8, 2023 (V 10.72 - 10.72)

Format © 1995-2014 Jmark Corporation

Date/Time Long at 14:08:32 November 17, 2023
 Trigger Source Geo: 0.610 mm/s
 Range Geo: 254.0 mm/s
 Record Time 4.0 sec at 1024 sps

Serial Number BE20626 V 10.72-1.1 Minimate Blaster
 Battery Level 6.1 Volts
 Unit Calibration January 18, 2023 by UES New Delhi
 File Name V626KAFJA80
 Post Event Notes
 At Near PSS Area 195 mt From Blasting patch

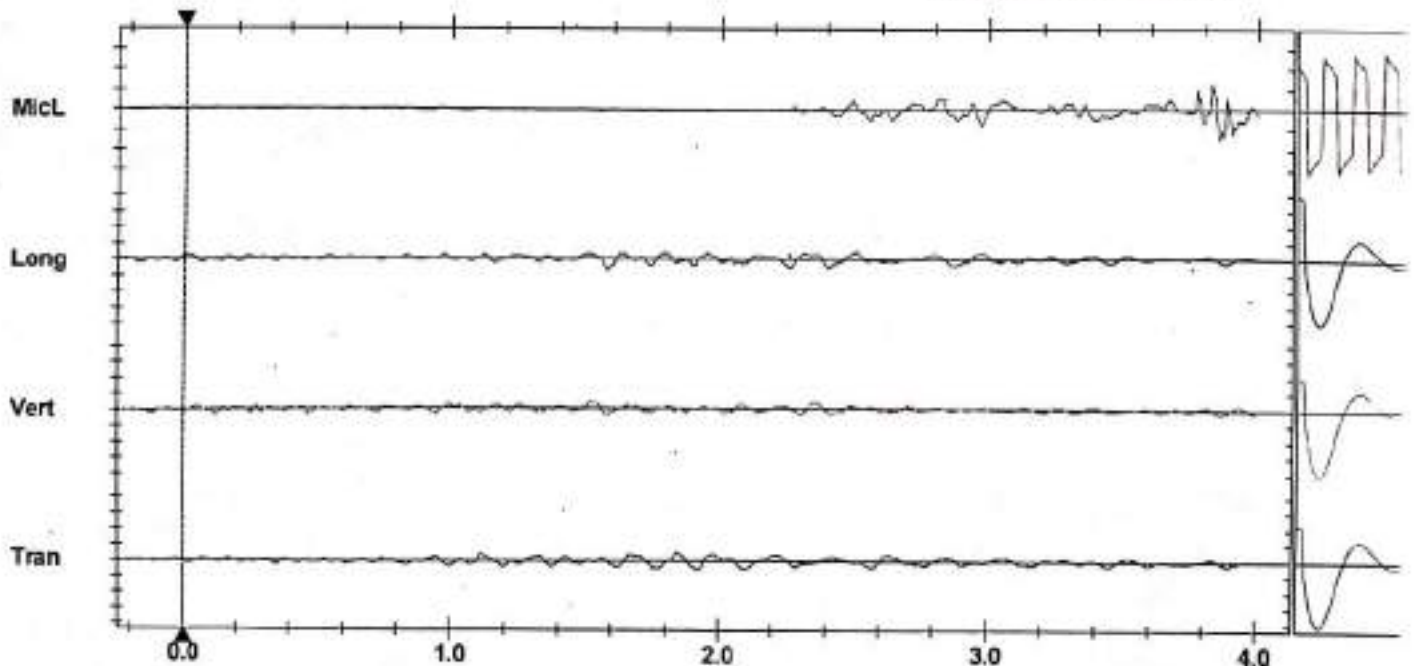
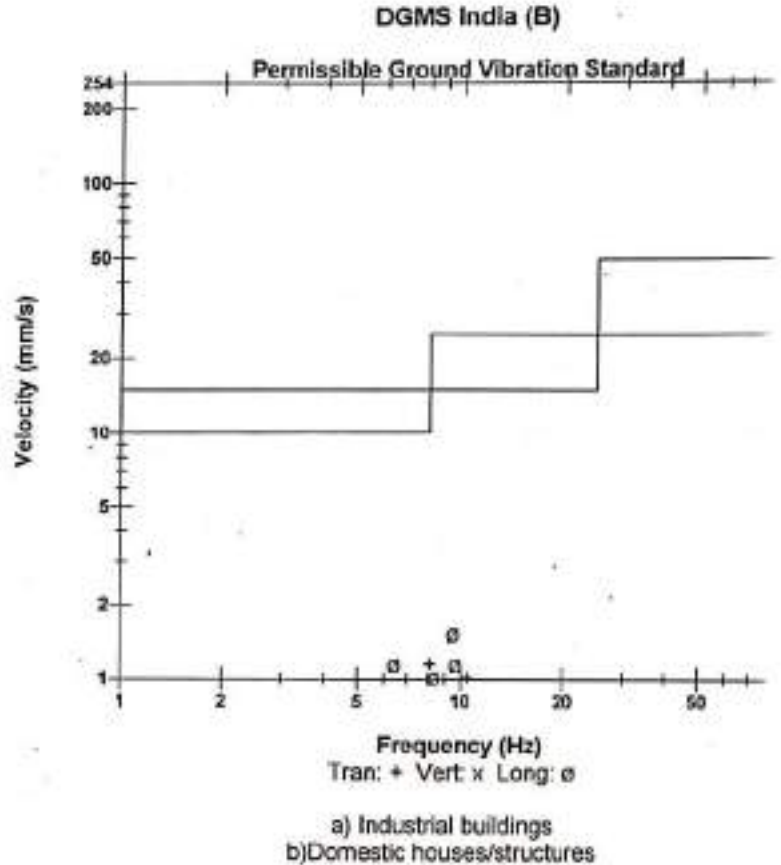
Notes
 Location: On ground surface
 Client: Pakri Barwadih Coal Mines Western Quarry
 User Name: Black Diamond Explosives Pvt Ltd
 General:

Extended Notes

Microphone Linear Weighting
 PSPL 117.2 dB(L) at 3.857 sec
 ZC Freq 15 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 476 mv)

	Tran	Vert	Long	
PPV	1.143	0.889	1.524	mm/s
PPV	52.16	49.99	54.66	dB
ZC Freq	8.1	8.8	9.5	Hz
Time (Rel. to Trig)	1.925	1.581	1.577	sec
Peak Acceleration	0.027	0.027	0.027	g
Peak Displacement	0.023	0.015	0.025	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.4	7.6	7.8	Hz
Overswing Ratio	3.2	3.6	3.3	

Peak Vector Sum 1.856 mm/s at 1.577 sec



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa (L)/div
 Trigger = \blacktriangleleft

Sensor Ch

MP

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 एन व्हायरवुक (पर्यावरण प्रबंधन) / DSM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

M. K. Singh

Date/Time Long at 14:13:52 November 19, 2023
 Trigger Source Geo: 0.300 mm/s, Mic: 44.77 pa.(L)
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 1024 sps
 Operator/Setup: Operator/factoryA.MMB

Serial Number UM20049 V 10-90FB Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration October 19, 2022 by UES New Delhi
 File Name UM20049_20231119141352.IDFW

Notes
 Location: RAMGARH
 Client: NTPC/TATA/CCL
 User Name: SOLAR INDUSTRIES INDIA LTD
 General: COAL MINES

Post Event Notes
 260m FROM THE BLASTING PATCH E 2nd AT NAGRI VILLAGE
 (SITE-P3CMP)

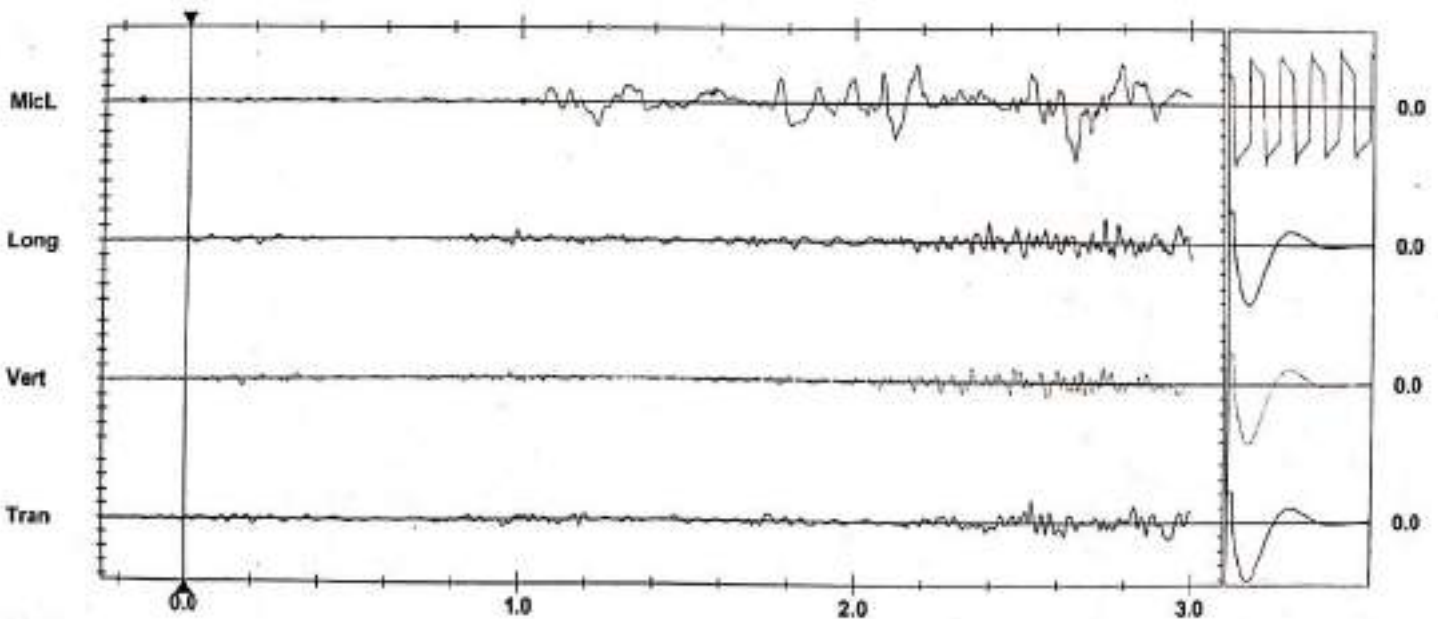
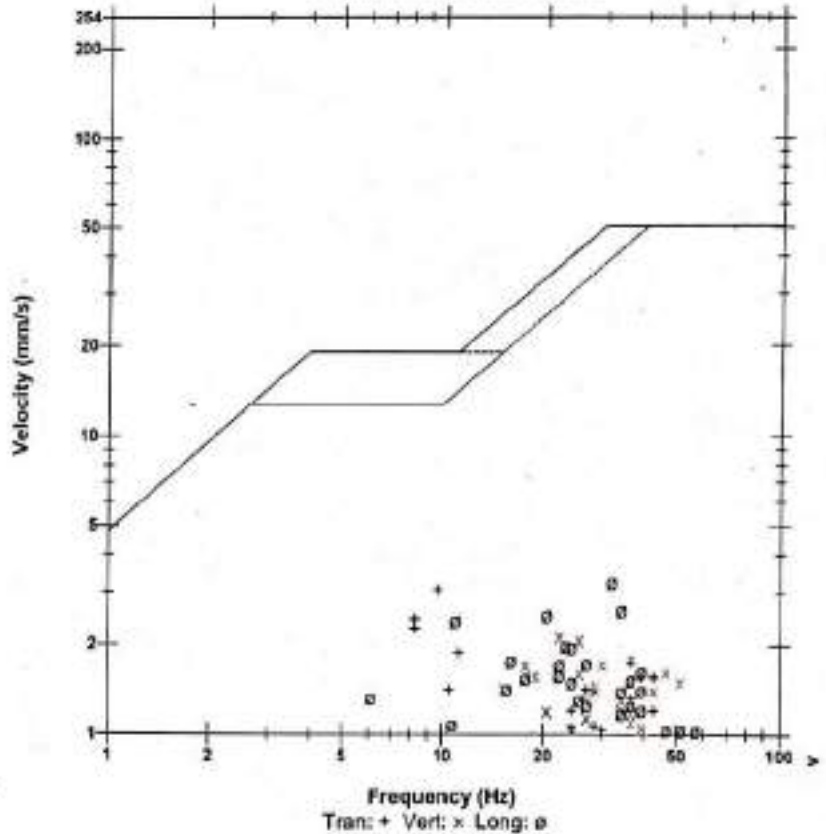
Extended Notes

Microphone Linear Weighting
 PSPL 7.649 pa.(L) at 2.655 sec
 ZC Freq 4.7 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1241 mv)

	Tran	Vert	Long	
PPV	3.058	2.136	3.247	mm/s
ZC Freq	9.7	22	32	Hz
Time (Rel. to Trig)	2.525	2.559	2.744	sec
Peak Acceleration	0.048	0.060	0.070	g
Peak Displacement	0.039	0.016	0.027	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.1	7.5	7.3	Hz
Overswing Ratio	4.2	4.2	4.2	

Peak Vector Sum 3.284 mm/s at 2.744 sec

USBM R18507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 2.000 pa.(L)/div
 Trigger =

Sensor Check

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 एन सी ई डी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एन टी पी सी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

CP

Event Report

Date/Time: Long at 14:25:56 December 9, 2023
 Trigger Source: Geo: 2.000 mm/s
 Range: Geo: 254.0 mm/s
 Record Time: 3.0 sec at 1024 sps
 Job Number: 1
 Operator/Setup: STL/SMPLMMB

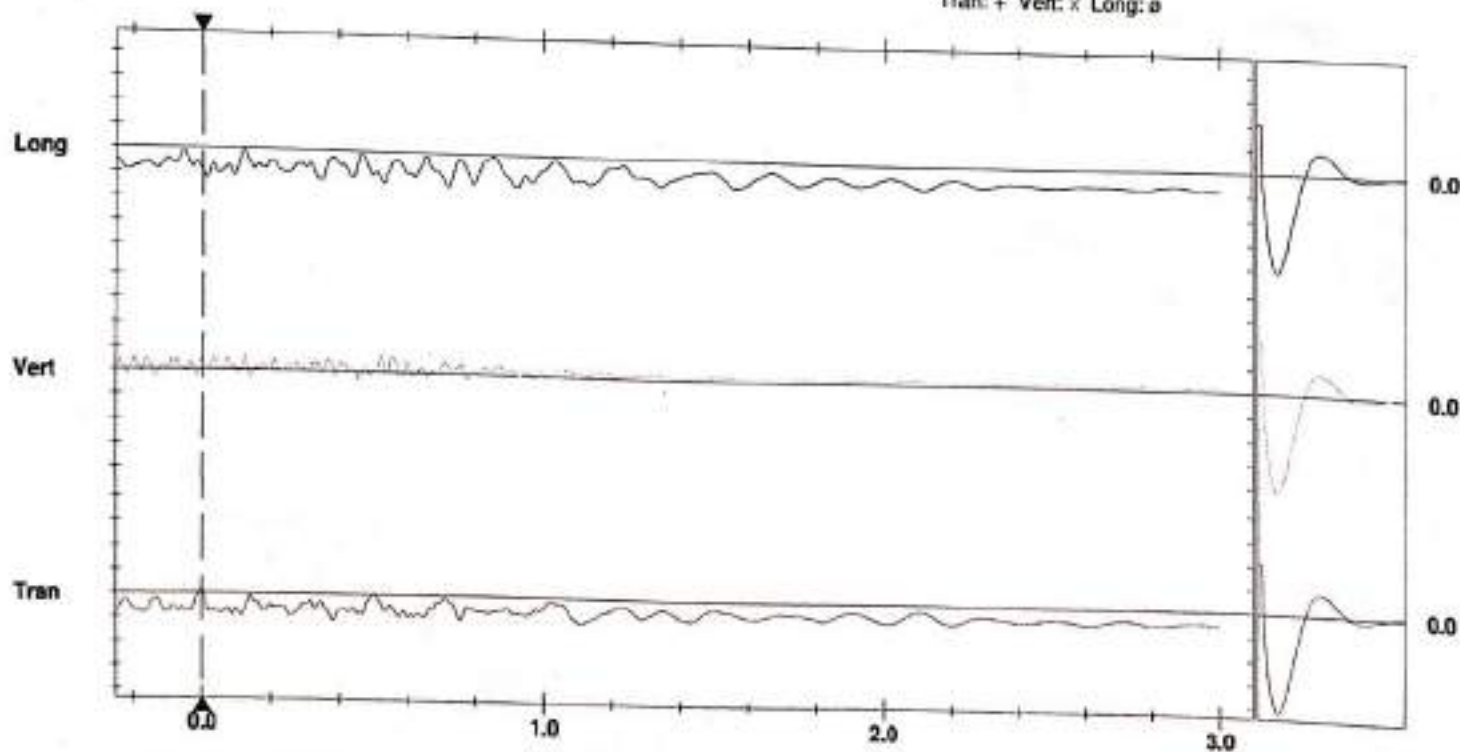
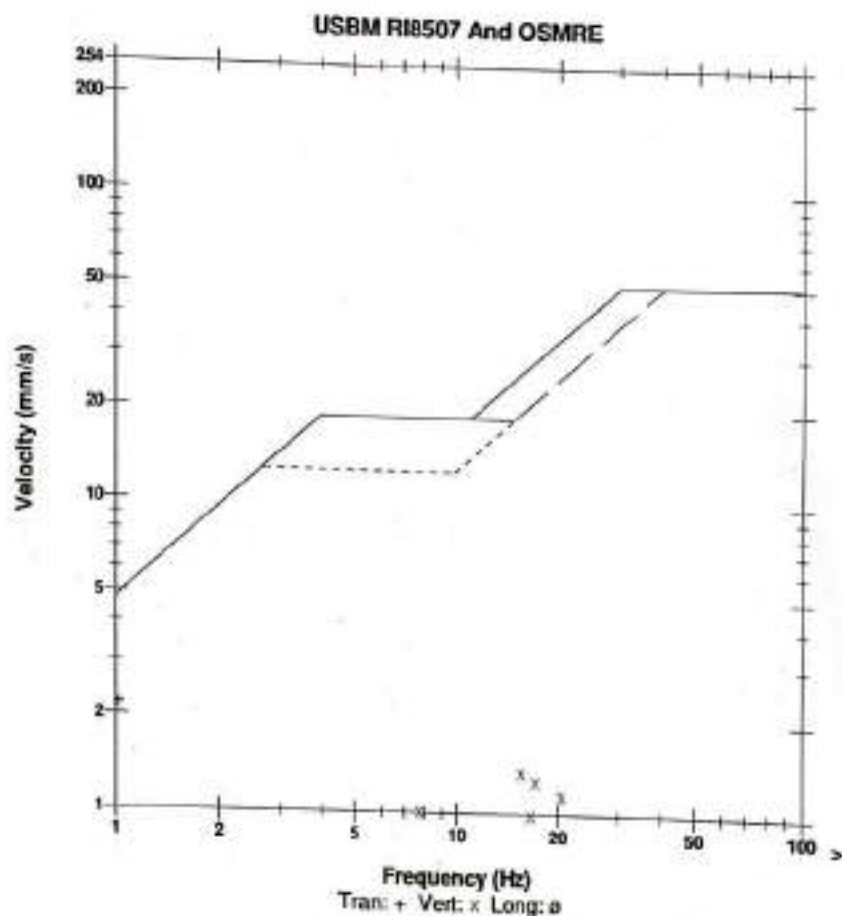
Serial Number: UM13888 V 10-89 Micromate ISEE
 Battery Level: 3.7 Volts
 Unit Calibration: November 5, 2022 by UES New Delhi
 File Name: _TEMP.EVT

Notes

Location: 8 OB
 Client: PB
 User Name: STL
 General:

	Tran	Vert	Long	
PPV	2.223	1.371	2.782	mm/s
ZC Freq	1.0	16	N/A	Hz
Time (Rel. to Trig)	0.380	0.521	0.720	sec
Peak Acceleration	0.016	0.033	0.020	g
Peak Displacement	0.297	0.027	0.000	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.5	7.1	Hz
Overswing Ratio	4.3	4.4	4.5	

Peak Vector Sum: 2.975 mm/s at 0.532 sec
 N/A: Not Applicable



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div
 Trigger =

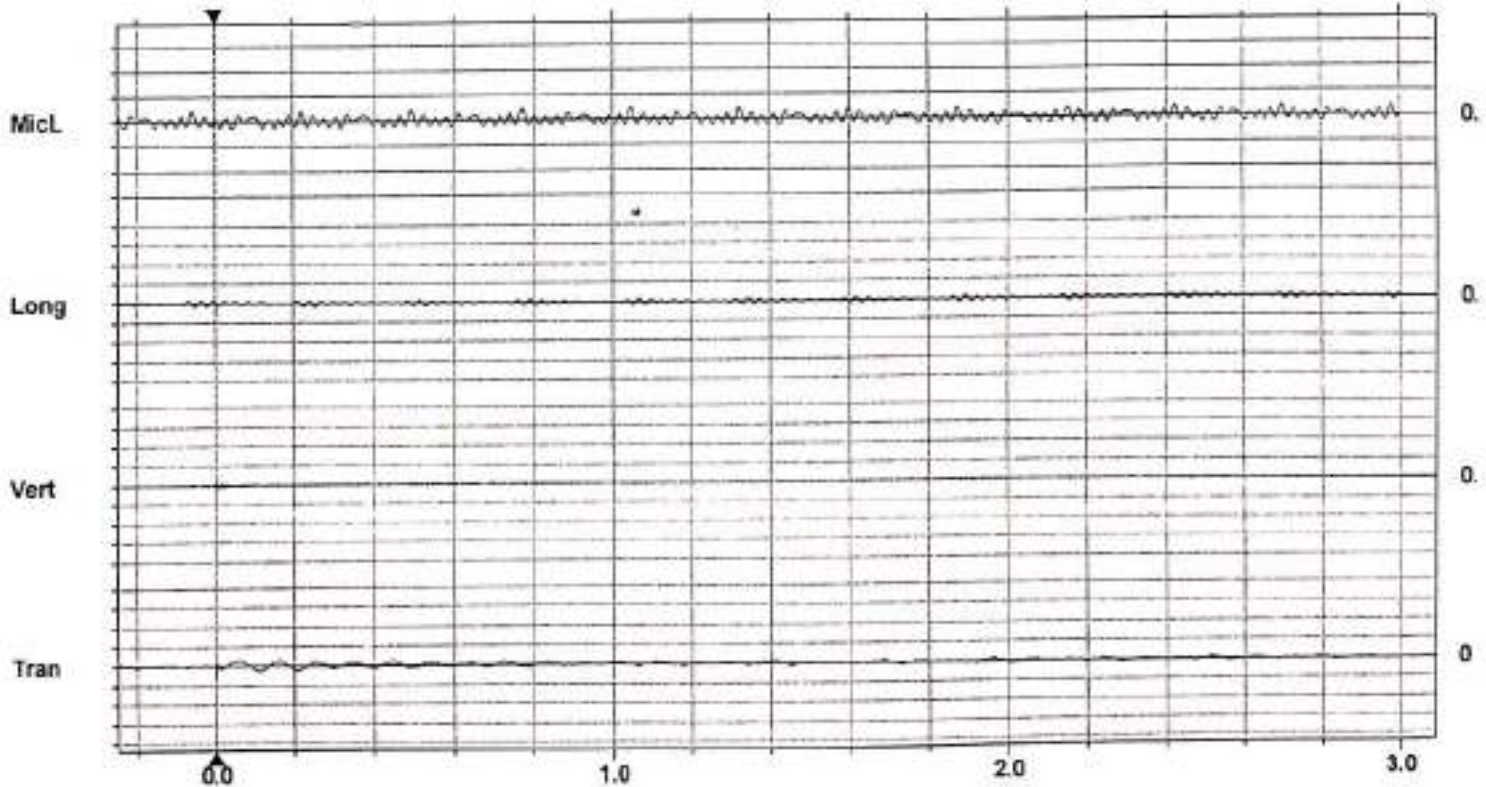
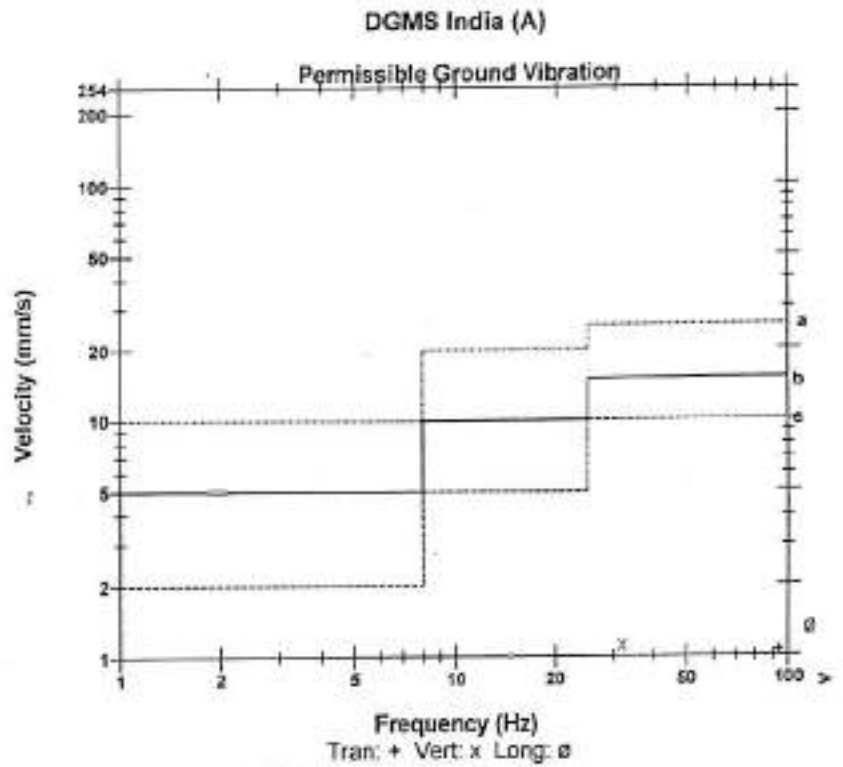
Date/Time Vert at 02:14:58 January 27, 2024
 Trigger Source Geo: 0.700 mm/s
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 2048 sps
 Operator/Setup: Operator/PBCMP TSMPL NTPC.MMB

Serial Number UM21132 V 10-90GC Micromate ISEE
 Battery Level 3.7 Volts
 Unit Calibration September 22, 2023 by UES New Delhi
 File Name _TEMP.EVT

Notes
 Location: PBCMP TSMPL
 Client: NTPC
 User Name: HIRALAL IND. PVT. LTD.
 General: COAL

Microphone Linear Weighting
 PSPL <0.500 pa.(L)
 ZC Freq 26 Hz
 Channel Test Passed (Freq = 20.5 Hz Amp = 1395 mv)

	Tran	Vert	Long	
PPV	1.056	1.127	1.332	mm/s
PPV (Ponderated)	0.648	0.266	0.360	mm/s
ZC Freq	93	32	114	Hz
Time (Rel. to Trig)	0.002	0.000	0.001	sec
Peak Acceleration	0.076	0.148	0.155	g
Peak Displacement	0.011	0.002	0.002	mm
Sensor Check	Passed	Passed	Passed	
Peak Vector Sum	1.674 mm/s at 0.001 sec			
N/A:	Not Applicable			



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div
 Trigger = \blacktriangleleft

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 डीएम (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 (एनटीपीसी लिमिटेड) / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

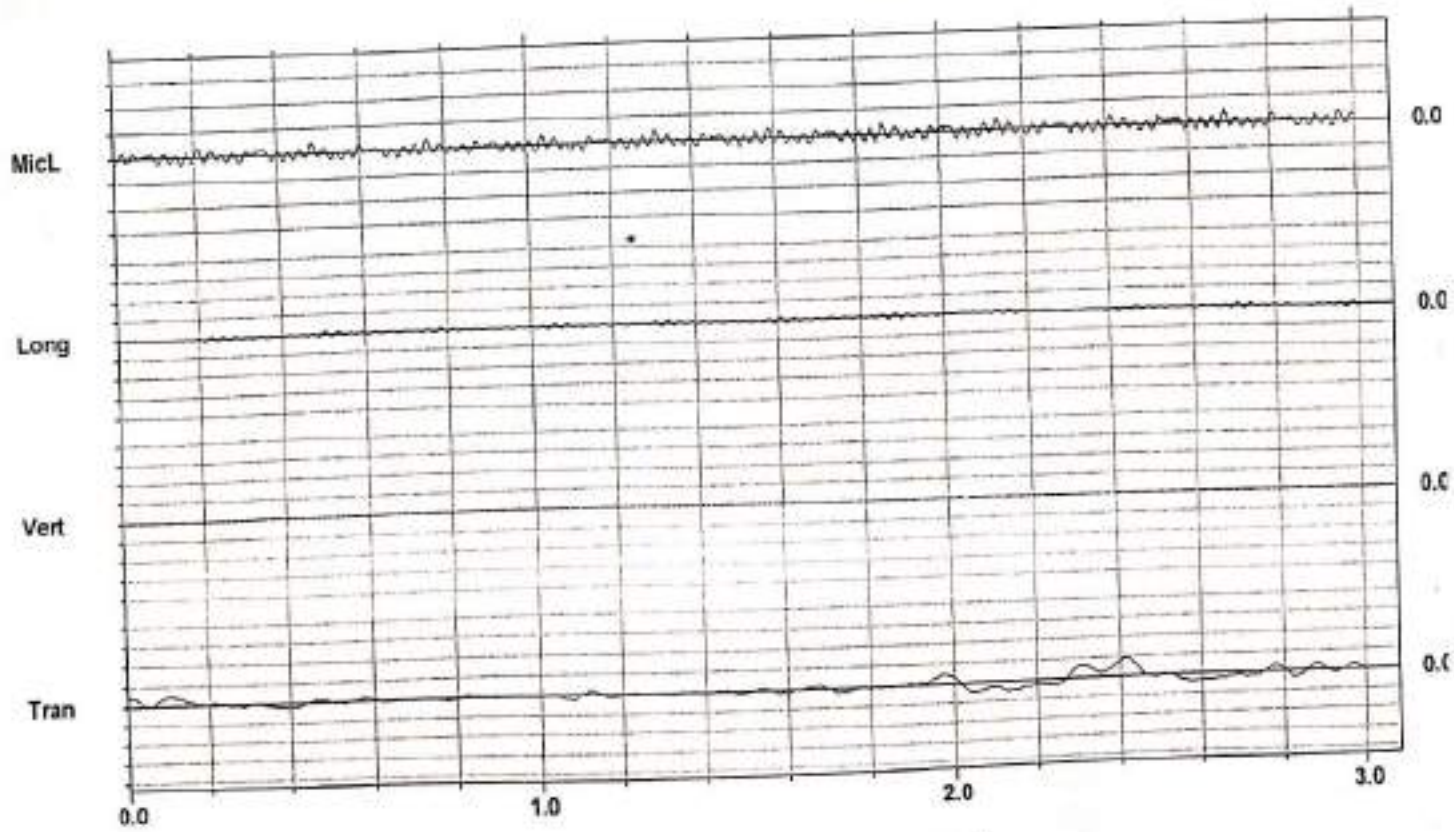
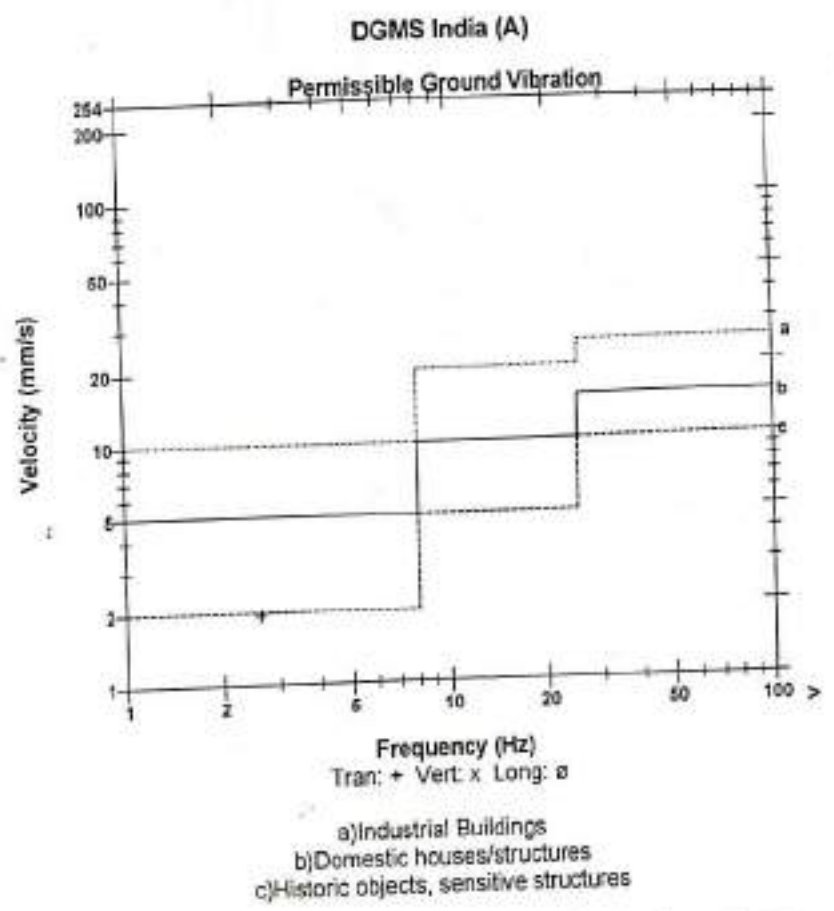
Date/Time Tran at 02:21:57 January 21, 2024
 Trigger Source Geo: 0.700 mm/s
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 2048 sps
 Operator/Setup: Operator/PBCMP TSMPL NTPC.MMB

Serial Number UM21132 V 10-90GC Micromate ISEE
 Battery Level 3.7 Volts
 Unit Calibration September 22, 2023 by UES New Delhi
 File Name _TEMP.EVT

Notes
 Location: PBCMP TSMPL
 Client: NTPC
 User Name: HIRALAL IND. PVT. LTD.
 General: COAL

Microphone Linear Weighting
 PSPL 0.512 pa.(L) at 2.688 sec
 ZC Freq 29 Hz
 Channel Test Passed (Freq = 20.5 Hz Amp = 1398 mv)

	Tran	Vert	Long	
PPV	1.939	0.134	0.323	mm/s
PPV (Ponderated)	3.622	0.156	0.344	mm/s
ZC Freq	2.6	29	30	Hz
Time (Rel. to Trig)	2.415	2.174	2.969	sec
Peak Acceleration	0.010	0.010	0.012	g
Peak Displacement	0.092	0.001	0.002	mm
Sensor Check	Passed	Passed	Passed	
Peak Vector Sum	1.953 mm/s at 2.415 sec			



Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 एन एचएमएल (एनटीपीसी प्रकल्प) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Date/Time Vert at 14:26:22 February 18, 2024
 Trigger Source Geo: 0.700 mm/s
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 2048 sps
 Operator/Setup: Operator/PBCMP TSMPL NTPC.mmb

Serial Number UM21132 V 10-90GC Micromate ISEE
 Battery Level 3.6 Volts
 Unit Calibration September 22, 2023 by UES New Delhi
 File Name _TEMP.EVT

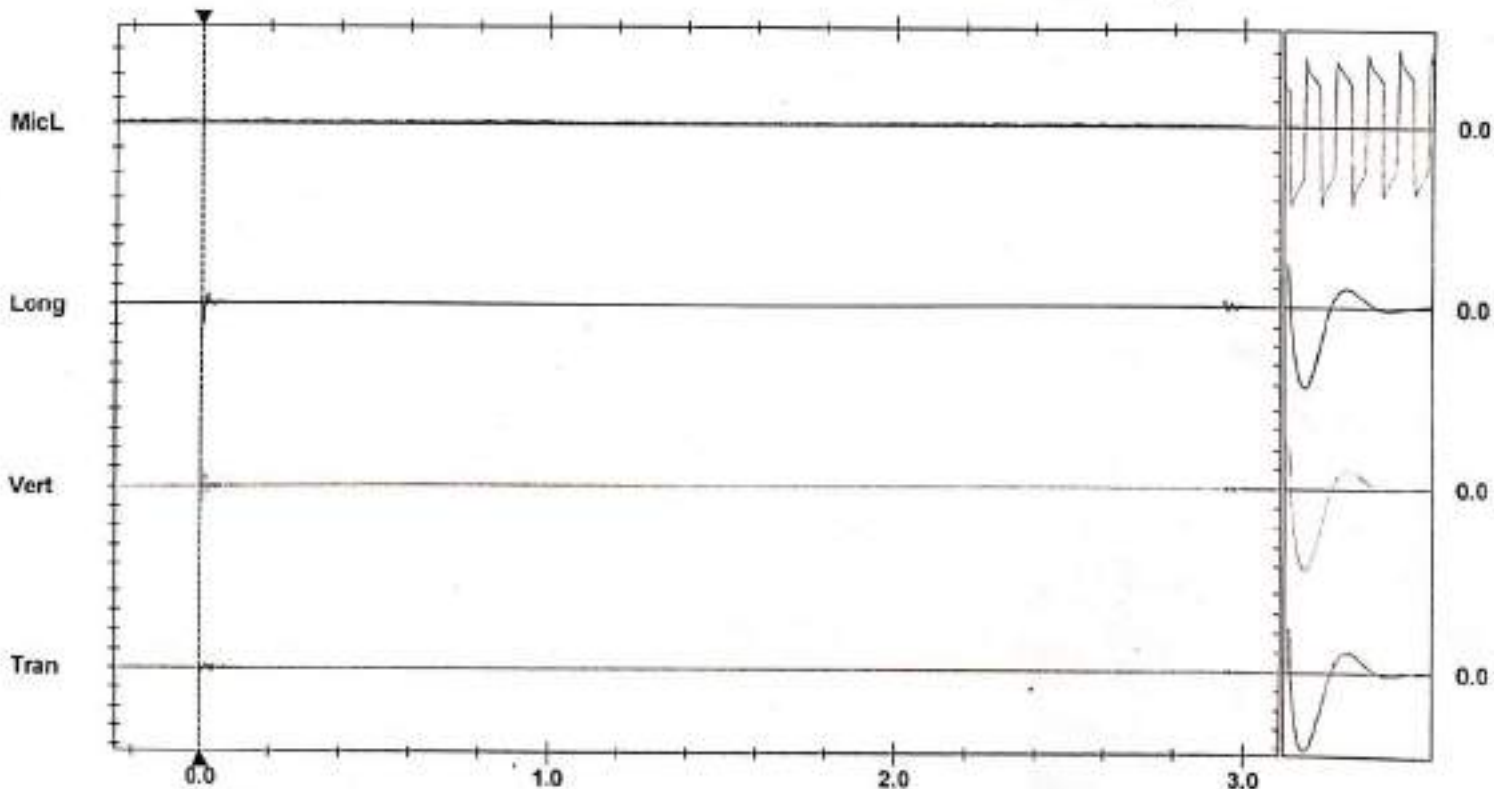
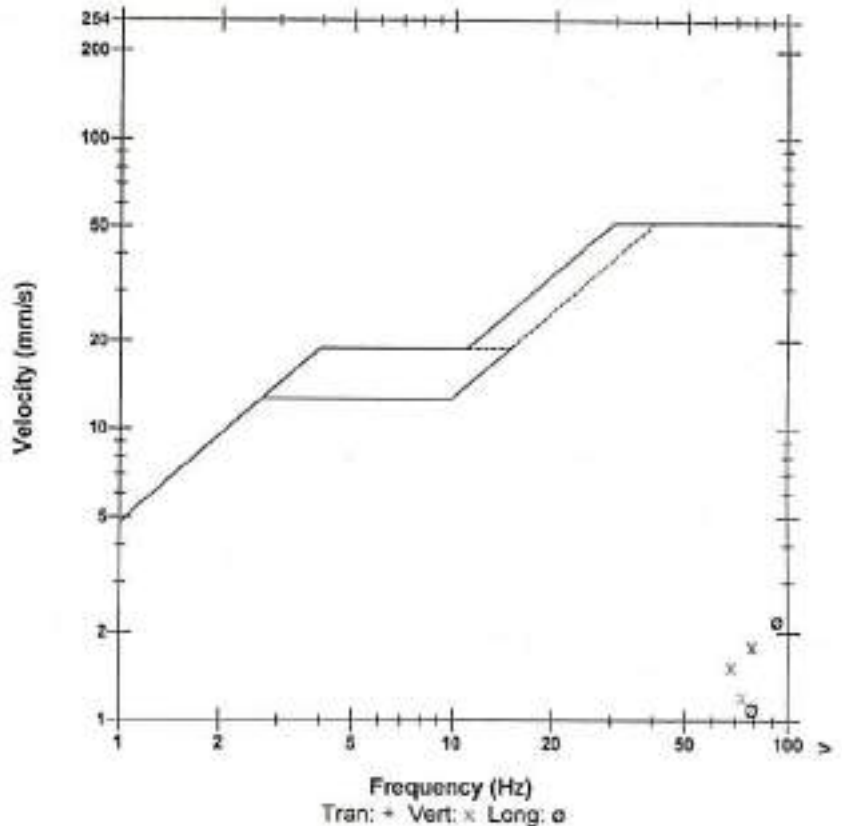
Notes
 Location: PBCMP TSMPL
 Client: NTPC
 User Name: HIRALAL IND. PVT. LTD.
 General: COAL

Microphone Linear Weighting
 PSPL <0.500 pa.(L)
 ZC Freq N/A
 Channel Test Passed (Freq = 20.5 Hz Amp = 1317 mv)

	Tran	Vert	Long	
PPV	0.520	1.813	2.215	mm/s
ZC Freq	41	79	93	Hz
Time (Rel. to Trig)	0.002	0.008	0.004	sec
Peak Acceleration	0.025	0.086	0.127	g
Peak Displacement	0.001	0.004	0.004	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.3	7.5	Hz
Overswing Ratio	4.1	4.4	4.1	

Peak Vector Sum 2.243 mm/s at 0.004 sec
 N/A: Not Applicable

USBM R18507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div
 Trigger = \longleftrightarrow

Sensor Check

Navin Kumar
 नवा कुमार / NAVIN KUMAR
 डीएम (पर्यावरण प्रबंधन), डीएम (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

Date/Time Vert at 14:19:45 February 24, 2024
 Trigger Source Geo: 0.700 mm/s
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 2048 sps
 Operator/Setup: Operator/PBCMP TSMPL NTPC.mmb

Serial Number UM21132 V 10-90GC Micromate ISEE
 Battery Level 3.6 Volts
 Unit Calibration September 22, 2023 by UES New Delhi
 File Name _TEMP.EVT

Notes

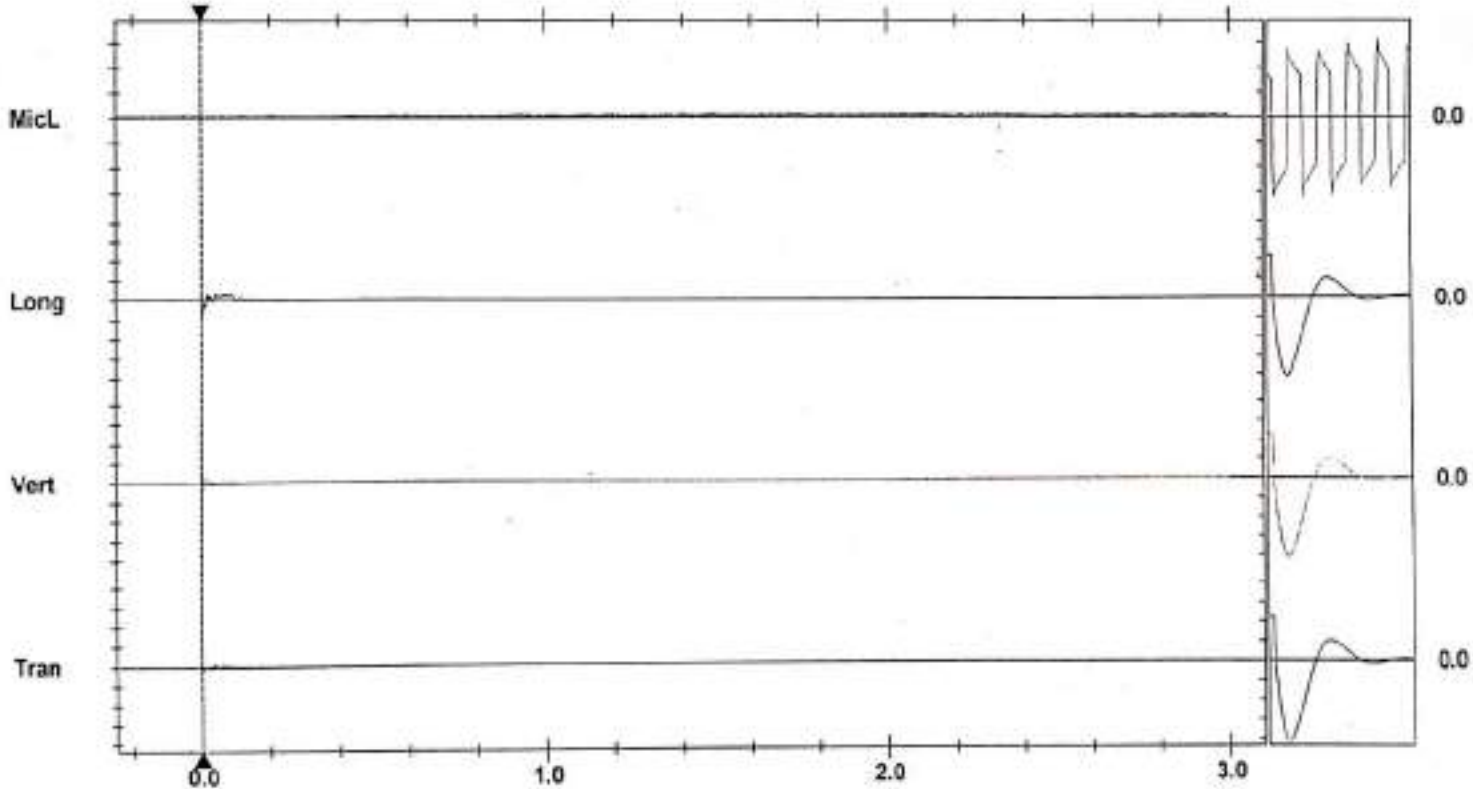
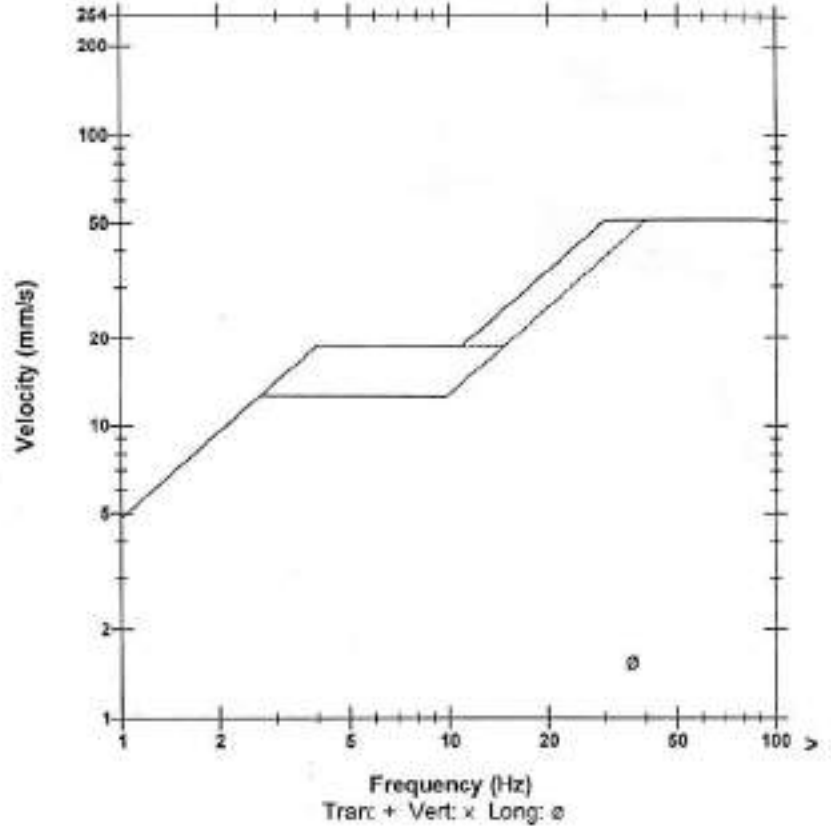
Location: PBCMP TSMPL
 Client: NTPC
 User Name: HIRALAL IND. PVT. LTD.
 General: COAL

Microphone Linear Weighting
 PSPL <0.500 pa.(L)
 ZC Freq 43 Hz
 Channel Test Passed (Freq = 20.5 Hz Amp = 1313 mv)

	Tran	Vert	Long	
PPV	0.315	0.772	1.561	mm/s
ZC Freq	37	79	37	Hz
Time (Rel. to Trig)	0.002	0.006	0.003	sec
Peak Acceleration	0.015	0.039	0.079	g
Peak Displacement	0.002	0.002	0.011	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.3	7.5	Hz
Overswing Ratio	4.1	4.4	4.1	

Peak Vector Sum 1.598 mm/s at 0.003 sec
 N/A: Not Applicable

USBM RI8507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa.(L)/div
 Trigger = \longleftrightarrow

Sensor Check

Navin Kumar

नवा- कुमार / NAVIN KUMAR
 एम एनटीपीसी (एनवीएमटी) DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

OP



Event Report

Date/Time Tran at 14:10:22 March 0, 2024
 Trigger Source Geo: 0.610 mm/s
 Range Geo: 254.0 mm/s
 Record Time 4.0 sec at 1024 sps

Serial Number BE20020 V 10.72-1.1 Minimate Blaster
 Battery Level 6.3 Volts
 Unit Calibration January 16, 2024 by CIMFR Dhanbad
 File Name V626KG0Y.1A0
 Post Event Notes
 At Near Nagar Village 285 Mtr From Blasting Patch

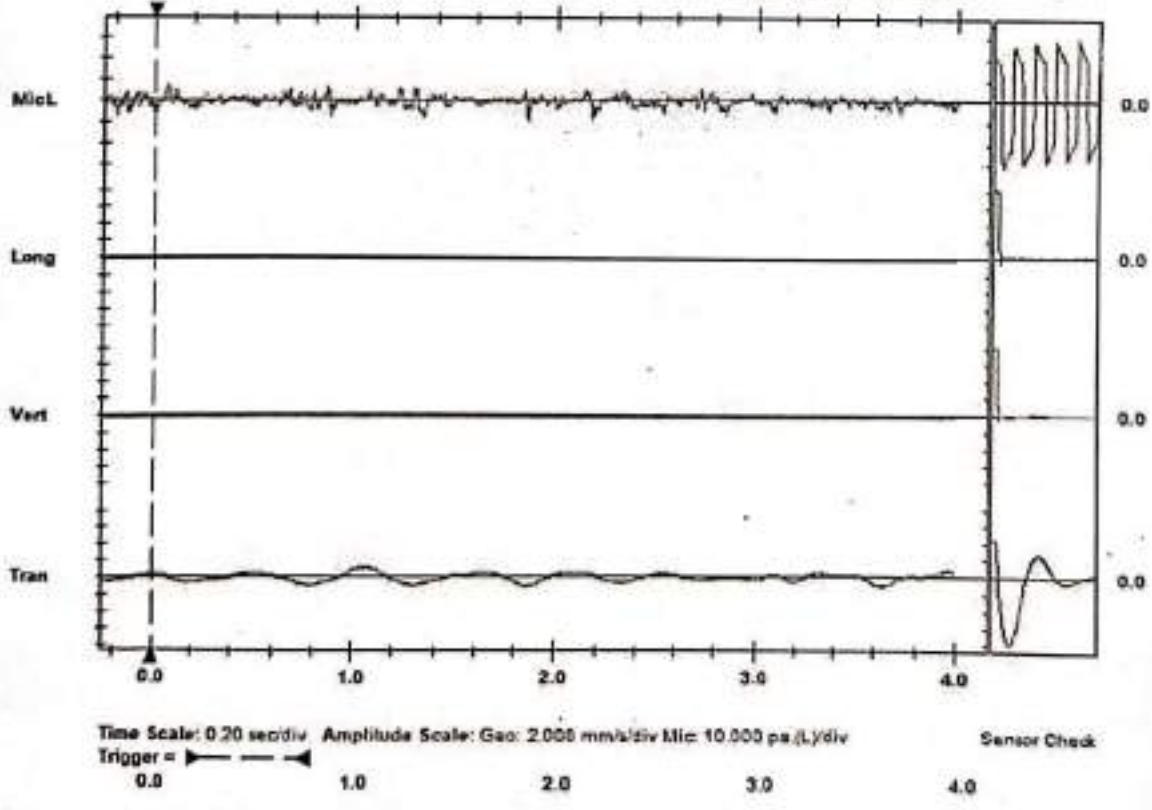
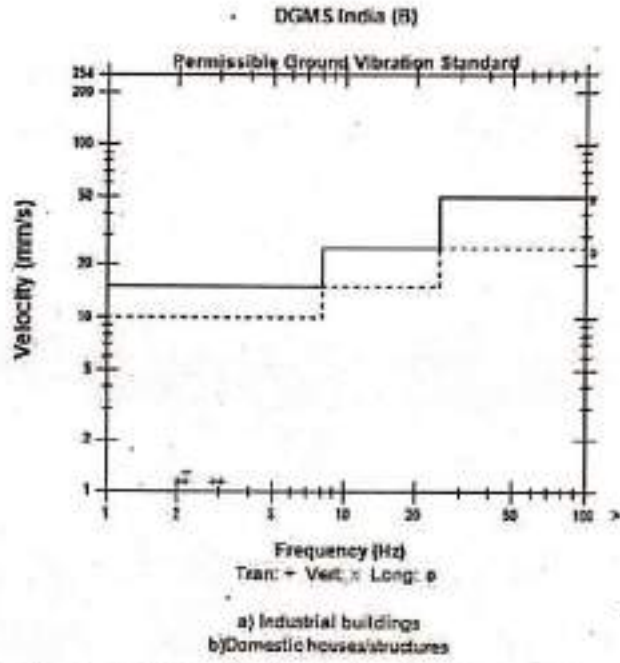
Notes
 Location: On ground surface
 Client: Pakri Barwadih Coal Mines Western Quarry
 User Name: Black Diamond Explosives Pvt Ltd
 General:

Extended Notes

Microphone Linear Weighting
 PSPL 113.1 dB(L) at 1.850 sec
 ZC Freq 32 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 480 mv)

	Tran	Vert	Long	
PPV	1.270	0.264	0.127	mm/s
PPV	53.08	29.10	33.08	dB
ZC Freq	2.2	>100	>100	Hz
Time (Rel. to Trig)	1.055	0.010	-0.249	sec
Peak Acceleration	0.027	0.027	0.027	g
Peak Displacement	0.088	0.000	0.000	mm
Sensor Check	Passed	Check	Check	
Frequency	7.4	7.6	2.9	Hz
Overswing Ratio	3.3	3.7	1.0	

Peak Vector Sum 1.276 mm/s at 1.055 sec



Navin Kumar
 नवा कुमार / NAVIN KUMAR
 एन एनटीपीसी लिमिटेड (पर्यावरण प्रबंधन), DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Date/Time Tran at 14:09:42 March 2, 2024
 Trigger Source Geo: 0.619 mm/s
 Range Geo: 254.8 mm/s
 Record Time 4.0 sec at 1024 sps

Serial Number BE20526 V 10.72-1.1 Minimate Blaster
 Battery Level 8.3 Volts
 Unit Calibration January 18, 2024 by CIMFR Dhanbad
 File Name V626K06Y.060

Notes
 Location: On ground surface
 Client: Pakri Barwadih Coal Mines Western Quarry
 User Name: Black Diamond Explosives Pvt Ltd
 General:

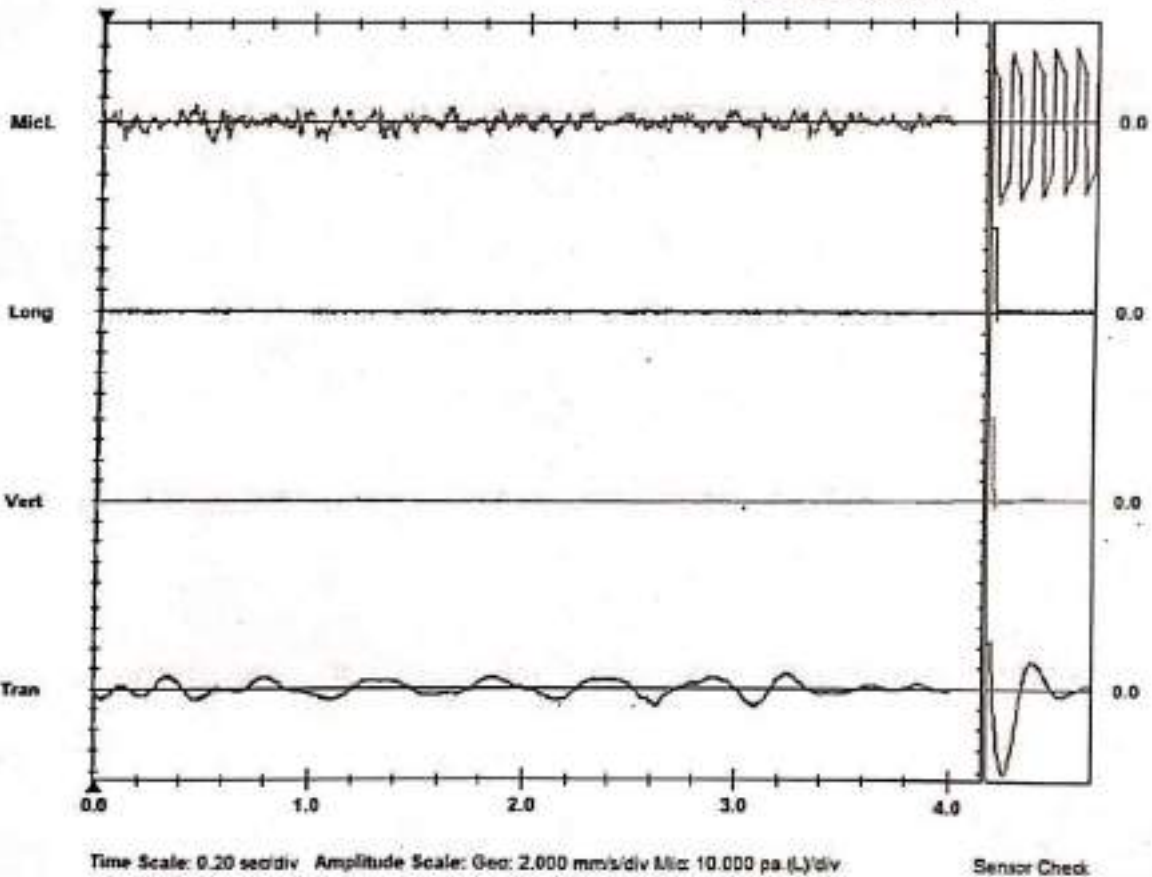
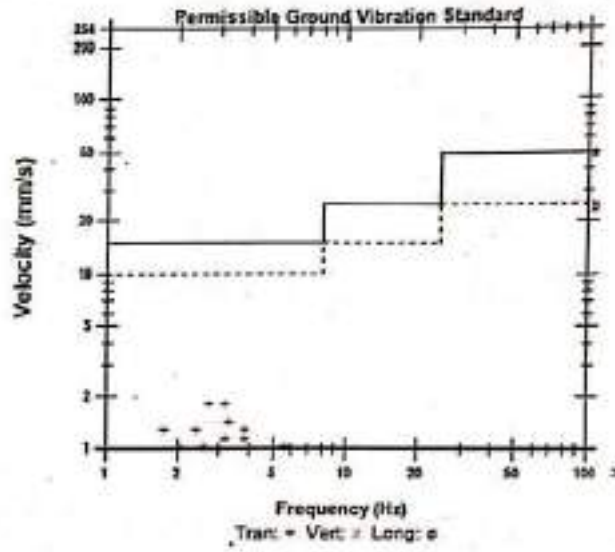
Extended Notes

Microphone Linear Weighting
 PSPL 111.5 dB(L) at 0.515 sec
 ZC Freq 7.4 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 480 mv)

	Tran	Vert	Long	
PPV	1.778	0.254	0.127	mm/s
PPV	56.00	39.10	33.08	dB
ZC Freq	2.8	>100	>100	Hz
Time (Rel. to Trig)	2.615	0.850	-0.001	sec
Peak Acceleration	0.027	0.027	0.027	g
Peak Displacement	0.095	0.000	0.000	mm
Sensor Check	Passed	Check	Check	
Frequency	7.4	7.6	2.9	Hz
Overswing Ratio	3.3	3.7	1.0	

Peak Vector Sum 1.767 mm/s at 3.091 sec

DGMS India (B)



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa (L)/div

Navin Kumar

नवा कुमार / NAVIN KUMAR
 डी जे व्हायरक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT											
Ground Water Level Monitoring Report (in meter) - Oct-2023 to March-2024											
Sl.No.	Monitoring Location	Total Depth of Well	Height from surface	GPS Location	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24
1	SINDUARI	10 meter	0.10 meter	N- 23° 53' 33.3" E- 85° 12' 08.3"	7.70	7.80	7.90	7.70	7.70	7.85	7.80
2	KANDABER	20 meter	0.95 meter	N- 23° 54' 26.4" E- 85° 09' 34.7"	9.15	9.20	9.10	9.50	9.20	9.40	9.20
3	SIRMA	9 meter	0.40 meter	N- 23° 53' 36.1" E- 85° 10' 42.5"	6.80	6.95	7.00	6.75	6.70	6.50	6.75
4	PAKRI BARWADIH	10 meter	0.55 meter	N- 23° 52' 16.6" E- 85° 13' 55.5"	4.90	4.95	4.90	4.90	4.85	5.00	5.00
5	AMBAJEET	11 meter	0.45 meter	N- 23° 51' 07.8" E- 85° 17' 12.0"	8.20	8.25	8.30	8.15	8.40	8.20	8.50
6	HORAM	10.5 meter	0.45 meter	N- 23° 50' 28.0" E- 85° 15' 09.6"	8.20	8.10	8.10	7.90	8.00	7.80	8.00
7	DHENGGA	11 meter	0.40 meter	N- 23° 50' 48.2" E- 85° 13' 30.9"	5.85	5.70	5.80	5.75	5.70	5.70	5.50
8	DEWORIA KHURD	9 meter	0.85 meter	N- 23° 53' 06.7" E- 85° 11' 06.9"	7.15	7.10	7.00	7.10	7.00	7.15	7.10
10	DARIKALAN	15.1 meter	0.25 meter	N-23°52'29.208" E- 85° 13'5.714"	9.60	9.70	9.80	9.40	9.60	9.50	9.50
11	LANGATU	14 meter	0.30 meter	N- 23° 51'0.889" E-85°12'54.623"	9.75	9.60	9.50	9.60	9.50	9.20	9.10
12	BARKAGAON	10 meter	0.75 meter	N- 23° 53' 05.5" E- 85° 12' 38.2"	8.15	8.10	8.00	8.00	8.00	8.20	8.00

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT

Automatic Water Level Reading in meter (Piezometer -1) Location - NTPC Office, Sikri

Date	October	November	December	January	February	March
1	6.98		6.38			8.38
2	6.35		6.07		7.14	
3	5.94		6.26		7.33	
4	5.69		6.05	6.65	7.49	
5	6.08		7.44	6.73		
6	5.56	5.46	6.83	7.90		
7	5.22		7.53	7.65		8.90
8	5.07	6.10	6.36	6.88	7.48	8.46
9	4.66	6.04	6.70	6.72	8.39	8.66
10	4.65	5.76	6.43	7.37	8.54	8.60
11	4.62	6.32	6.09	6.81	7.97	8.61
12		5.45	6.44		7.71	9.16
13		5.08	6.23		7.90	8.92
14	5.31	5.47	6.23		7.63	
15	4.83	5.41	6.20		7.54	
16	4.70	5.44	7.15		7.40	
17	4.82	6.50	6.53		7.77	
18	4.59	6.15	6.95		8.46	9.98
19	4.56	5.92	6.86	7.30	7.77	9.60
20	4.79	5.68	6.71	6.94	7.85	9.17
21	5.13	5.75	6.88	6.60		9.24
22	4.97	6.23	6.58	6.80		9.56
23	5.03	6.09	7.35	6.95		9.99
24	4.70	6.25	6.89	7.00		
25	4.51	6.06		7.80		
26	4.90	6.09		7.22		
27	5.07	5.85	6.69	6.97	8.21	
28		5.96	6.59		8.43	
29		6.09	6.53		8.28	
30		6.33	6.32			
31						
Avg.	5.15	5.90	6.62	7.08	7.86	9.09

Navin Kumar

नवा कुमार / NAVIN KUMAR

एन व्हाट्सवर्क (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)

एनटीपीसी लिमिटेड / NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT						
Automatic Water Level Reading in meter (Piezometer -2) – 2023-24, Location - Nursery, Sonbarsa						
Date	October	November	December	January	February	March
1	7.32	7.85	8.64	8.51		8.69
2	6.83	7.87	8.54	8.55		8.68
3	6.61	7.89	8.61	8.56		8.25
4	6.46	7.90	8.56	8.56		8.10
5	6.35	7.91	8.51	8.53		8.65
6	6.34	7.96	8.48	8.53		7.98
7	6.37	7.99	8.42	8.66		8.16
8	6.44	8.07	8.28	8.76		8.60
9	6.46	8.03	8.29	8.70		8.85
10	6.50	8.04	8.27	8.69		8.78
11	6.58	8.01		8.67		8.78
12	6.63	8.14	8.20	8.62		8.94
13	6.74	8.09	8.28	8.76		5.86
14	6.84	8.10		8.73		8.52
15	6.88	8.19		8.71		8.80
16	7.06	8.22		8.78		9.09
17	7.12	8.27		8.73		8.52
18		8.24			6.10	8.77
19	7.27	8.26			5.95	8.86
20	7.28	8.15			8.50	8.78
21	7.32	8.26			8.43	8.78
22	7.39	8.24			8.58	8.67
23	7.45	8.21	8.52		8.56	5.73
24	7.45	8.27	8.47		8.54	8.75
25	7.48	8.26	8.49		8.54	8.79
26	7.54	8.31	8.49		8.28	8.91
27	7.58	8.34	8.49		8.38	8.46
28	7.66	8.41	8.49		8.52	8.27
29	7.66	8.45	8.45		8.66	9.16
30	7.76	8.62	8.42			9.00
31	7.79		8.51			6.94
Avg.	7.04	8.15	8.45	8.65	8.09	8.42

Navin Kumar

नवा कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 (एनटीपीसी लिमिटेड) / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenviro@lab@gmail.com
MoEF&CC Recognized Environmental Laboratory

GROUND WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAOŃ, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES								
GROUND WATER REPORT (16.11.2023)							Acceptable Limit	Permissible Limit
S. No	PARAMETER	Unit	RESULT					
			WELL AT SINDUARI- (GW-1)	WELL AT KANDABER - (GW-2)	WELL AT SIRMA- (GW-3)	WELL AT PAKRI BARWADIH - (GW-4)	IS: 10500:2012	
1	Colour	Hazen	<5.0	<5.0	<5.0	<5.0	5 Max	15 Max
2	Odour	---	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	---	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	4.2	3.9	4.2	4.8	1	5
5	pH	---	7.52	7.26	7.53	7.41	6.5-8.5	No relaxation
6	Residual Free Chlorine(as Cl ₂)	mg/l	ND	ND	ND	ND	0.2	1
7	Total Dissolved Solids	mg/l	456	485	512	397	500	2000
8	Total Hardness (as CaCO ₃)	mg/l	192	202	213	165	200	600
9	Calcium (as Ca)	mg/l	38.4	40.4	42.7	33.1	75	200
10	Magnesium	mg/l	23.3	24.5	25.9	20.1	30	100
11	Chloride (as Cl)	mg/l	123	131.1	138.0	107.3	250	1000
12	Sulphate	mg/l	52.0	49.0	56.0	48.0	200	400
13	Iron (as Fe)	mg/l	0.29	0.31	0.28	0.32	0.3	No relaxation
14	Copper(as Cu)	mg/l	BDL	BDL	BDL	BDL	0.05	1.5
15	Boron	mg/l	BDL	BDL	BDL	BDL	0.5	1
16	Nitrate (as No ₃)	mg/l	4.5	5.2	5.1	4.7	45	No relaxation
17	Fluoride (as F)	mg/l	0.23	0.35	0.37	0.21	1	1.5
18	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	BDL	BDL	BDL	BDL	0.001	0.002
19	Mercury(as Hg)	mg/l	BDL	BDL	BDL	BDL	0.001	No relaxation
20	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	0.003	No relaxation
21	Selenium (as Se)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
22	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	0.05	0.05

CHECKED BY
SRIKANTH SHANKAR (Technical Manager)

Navin Kumar
नवा कुमार / NAVIN KUMAR
जि. प्रशासक (पर्यावरण प्रबन्धन) / JCM (ENVT. MGMT.)
एनपीसी लिमिटेड NTPC Limited
जंजरा वन्य परियोजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag



Page 1 of 2

GROUND WATER REPORT								
23	Cyanide (as CN)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
24	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
25	Zinc (as Zn)	mg/l	BDL	BDL	BDL	BDL	5	15
26	Total Alkalinity	mg/l	158	182	176	132	200	600
27	Aluminium (as Al)	mg/l	BDL	BDL	BDL	BDL	0.03	0.2
28	Barium (as Ba)	mg/l	BDL	BDL	BDL	BDL	0.7	No relaxation
29	Ammonia (Total Ammonia -N)	mg/l	BDL	BDL	BDL	BDL	0.5	No relaxation
30	Silver (as Ag)	mg/l	BDL	BDL	BDL	BDL	0.1	No relaxation
31	Nickel (as Ni)	mg/l	BDL	BDL	BDL	BDL	0.02	No relaxation
32	Chromium (as Cr + ⁶)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
33	Manganese (as Mn)	mg/l	BDL	BDL	BDL	BDL	0.1	0.3
34	E.Coli	/100 ml	Absent	Absent	Absent	Absent	---	NOT DETECTABLE IN 100 ML SAMPLE
35	Total Coli forms	MPN/100 ml	Absent	Absent	Absent	Absent	---	NOT DETECTABLE IN 100 ML SAMPLE
36	Conductivity	µS/cm	684	785	546	659	NOT SPECIFIED	NOT SPECIFIED

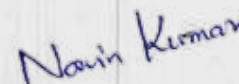
BDL- Below Detection Limit

END OF TEST REPORT

Page No. 2 of 2

FOR GLOBAL ENVIRO LABORATORIES


CHECKED BY
(INTEKHAB KHAN) (Technical Manager)


नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी (एनवीएम प्रोजेक्ट्स) / OGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
एनएल डीएम प्रोजेक्ट्स / OGL MINING PROJECTS
हज़ारिबाग / Hazaribag


AUTHORISED SIGNATORY
(SHRIMA BHATTARA)





GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirotab@gmail.com
MoEF&CC Recognized Environmental Laboratory

GROUND WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES								
GROUND WATER REPORT (16.11.2023)							Acceptable Limit	Permissible limit
S. No	PARAMETER	UNIT	RESULT						IS: 10500:2012
			WELL AT AMBAJIT- (GW-3)	WELL AT HORAM (GW-6)	WELL AT BARKAGAON (GW-7)	WELL AT DEWORIA KHURD- (GW-8)		
1	Colour	Hazen	<5.0	<5.0	<5.0	<5.0	5 Max	15 Max
2	Odour	---	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	---	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	3.8	3.4	2.5	3.6	1	5
5	pH	---	7.62	7.21	7.26	7.25	6.5-8.5	No relaxation
6	Residual Free Chlorine(as Cl ₂)	mg/l	ND	ND	ND	ND	0.2	1
7	Total Dissolved Solids	mg/l	483	492	462	397	500	2000
8	Total Hardness (as CaCO ₃)	mg/l	201	205	193	165	200	600
9	Calcium (as Ca)	mg/l	40.3	41.0	38.5	33.1	75	200
10	Magnesium	mg/l	24.4	24.9	23.4	20.1	30	100
11	Chloride (as Cl)	mg/l	130.5	133.0	124.9	107.3	250	1000
12	Sulphate	mg/l	42.0	53.0	58.0	39.0	200	400
13	Iron (as Fe)	mg/l	0.27	0.38	0.26	0.37	0.3	No relaxation
14	Copper(as Cu)	mg/l	BDL	BDL	BDL	BDL	0.05	1.5
15	Boron	mg/l	BDL	BDL	BDL	BDL	0.5	1
16	Nitrate (as No ₂)	mg/l	4.2	5.9	4.8	5.7	45	No relaxation
17	Fluoride (as F)	mg/l	0.27	0.26	0.34	0.23	1	1.5
18	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	BDL	BDL	BDL	BDL	0.001	0.002
19	Mercury(as Hg)	mg/l	BDL	BDL	BDL	BDL	0.001	No relaxation
20	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	0.003	No relaxation
21	Selenium (as Se)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
22	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	0.05	0.05

Checked by
SANTOSH DHANU (Technical Manager)

Navin Kumar
श्री. कुमर / NAVIN KUMAR
आ. प्रशासक (पर्यावरण प्रशासक), DGM (ENVT. MGMT.)
एनटीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

AUTHORIZED SIGNATORY
(SANTOSH DHANU)

GROUND WATER REPORT								
23	Cyanide (as CN)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
24	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
25	Zinc (as Zn)	mg/l	BDL	BDL	BDL	BDL	5	15
26	Total Alkalinity	mg/l	184	156	172	164	200	500
27	Aluminum (as Al)	mg/l	BDL	BDL	BDL	BDL	0.03	0.2
28	Barium (as Ba)	mg/l	BDL	BDL	BDL	BDL	0.7	No relaxation
29	Ammonia (Total Ammonia -N)	mg/l	BDL	BDL	BDL	BDL	0.5	No relaxation
30	Silver (as Ag)	mg/l	BDL	BDL	BDL	BDL	0.1	No relaxation
31	Nickel (as Ni)	mg/l	BDL	BDL	BDL	BDL	0.02	No relaxation
32	Chromium (as Cr +6)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
33	Manganese (as Mn)	mg/l	BDL	BDL	BDL	BDL	0.1	0.3
34	E. Coli	/100 ml	Absent	Absent	Absent	Absent	----	NOT DETECTABLE IN 100 ML SAMPLE
35	Total Coli forms	MPN/100 ml	Absent	Absent	Absent	Absent	----	NOT DETECTABLE IN 100 ML SAMPLE
36	Conductivity	µS/cm	745	567	698	564	NOT SPECIFIED	NOT SPECIFIED

BDL- Below Detection Limit

END OF TEST REPORT

Page No. 2 of 2

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY

(INTEKHAB KHAN)(Technical Manager)



AUTHORISED SIGNATORY
(SHIKHA BHATTYA)

Navin Kumar

नवा - कुमार / NAVIN KUMAR

एन एचएल (एनवीएल प्रोजेक्ट) / OGM (ENVT. MGMT.)

(एनटीपीसी लिमिटेड) NTPC Limited

गोदाल खनन परियोजनाएँ / GOAL MINING PROJECTS
हज़ारिबाग / Hazaribag



GROUND WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: **M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)**

GROUND WATER REPORT (16.11.2023)						Acceptable Limit	Permissible limit
S. No	PARAMETER	Unit	RESULT		IS: 10500:2012		
			BOREWELL NO.2-MDO	R&R COLONY DHENGA			
1	Colour	Hazen	<5	<5	5 Max	15 Max	
2	Odour	....	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	....	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	2.4	2.3	1	5	
5	pH	....	7.23	7.21	6.5-8.5	No relaxation
6	Residual Free Chlorine(as Cl ₂)	mg/l	N.D.	N.D.	0.2	1	
7	Total Dissolved Solids	mg/l	425	436	500	2000	
8	Total Hardness (as CaCO ₃)	mg/l	195	182	200	600	
9	Calcium (as Ca)	mg/l	39.00	36.33	75	200	
10	Magnesium	mg/l	23.71	22.09	30	100	
11	Chloride (as Cl)	mg/l	111.8	114.7	250	1000	
12	Sulphate	mg/l	43.0	58.0	200	400	
13	Iron (as Fe)	mg/l	0.31	0.24	0.3	No relaxation	
14	Copper(as Cu)	mg/l	BDL	BDL	0.05	1.5	
15	Boron	mg/l	BDL	BDL	0.5	1	
16	Nitrate (as No ₃)	mg/l	5.3	4.5	45	No relaxation	
17	Fluoride (as F)	mg/l	0.34	0.25	1	1.5	
18	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	BDL	BDL	0.001	0.002	
19	Mercury(as Hg)	mg/l	BDL	BDL	0.001	No relaxation	
20	Cadmium (as Cd)	mg/l	BDL	BDL	0.003	No relaxation	
21	Selenium (as Se)	mg/l	BDL	BDL	0.01	No relaxation	
22	Arsenic (as As)	mg/l	BDL	BDL	0.01	0.05	

CHECKED BY
UNDEKHAH KHAN (Technical Manager)

Navin Kumar
नवा - कुमार / NAVIN KUMAR
एन एनटीसी (प्राकारण प्रकल्प) / OGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
पैदाश बनान प्रोजेक्ट / COAL MINING PROJECTS
हजारिबाग / Hazaribag



Page 1 of 2

GROUND WATER REPORT

23	Cyanide (as CN)	mg/l	BDL	BDL	0.05	No relaxation
24	Lead (as Pb)	mg/l	BDL	BDL	0.01	No relaxation
25	Zinc (as Zn)	mg/l	BDL	BDL	5	15
26	Total Alkalinity	mg/l	138	124	200	600
27	Aluminium (as Al)	mg/l	BDL	BDL	0.03	0.2
28	Barium (as Ba)	mg/l	BDL	BDL	0.7	No relaxation
29	Ammonia (Total Ammonia -N)	mg/l	BDL	BDL	0.5	No relaxation
30	Silver (as Ag)	mg/l	BDL	BDL	0.1	No relaxation
31	Nickel (as Ni)	mg/l	BDL	BDL	0.02	No relaxation
32	Chromium (as Cr + ⁶)	mg/l	BDL	BDL	0.05	No relaxation
33	Manganese (as Mn)	mg/l	BDL	BDL	0.1	0.3
34	E.Coli	/100 ml	Absent	Absent	---	NOT DETECTABLE IN 100 ML SAMPLE
35	Total Coli forms	MPN/100 ml	Absent	Absent	---	NOT DETECTABLE IN 100 ML SAMPLE
36	Conductivity	µS/cm	712	653	NOT SPECIFIED	NOT SPECIFIED

BDL- Below Detection Limit

***END OF TEST REPORT ***

Page No. 2 of 2

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN) (Technical Manager)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन.एच.एल. (पर्यावरण प्रबंधन) : DGM (ENVT. MGMT.)
(एनटीपीसी लिमिटेड) NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

AUTHORISED SIGNATORY
(SNEHA BHATIYA)



GROUND WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF JANUARY 2024

Name and Address of Customer: **M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)**

PAKRI BARWADIH COAL MINES								
GROUND WATER REPORT (15.01.2024)							Acceptable Limit	Permissible limit
S. No	PARAMETER	Unit	WELL AT SINDUARI-(GW-1)	WELL AT KANDABER -(GW-2)	WELL AT SIRMA-(GW-3)	WELL AT PAKRI BARWADIH -(GW-4)			IS: 10500:2012
1	Colour	Hazen	<5.0	<5.0	<5.0	<5.0	5 Max	15 Max
2	Odour	---	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	---	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	3.3	3.8	4.6	4.7	1	5
5	pH	---	7.46	7.36	7.28	7.45	6.5-8.5	No relaxation
6	Residual Free Chlorine(as Cl ₂)	mg/l	ND	ND	ND	ND	0.2	1
7	Total Dissolved Solids	mg/l	497	516	396	517	500	2000
8	Total Hardness (as CaCO ₃)	mg/l	206	215	168	215	200	600
9	Calcium (as Ca)	mg/l	41.4	42.7	33.6	43.1	75	200
10	Magnesium	mg/l	25.2	25.8	20.6	25.8	30	100
11	Chloride (as Cl)	mg/l	136	138.6	107.2	138.6	250	1000
12	Sulphate	mg/l	58.2	54.2	54.0	42.2	200	400
13	Iron (as Fe)	mg/l	0.26	0.27	0.35	0.27	0.3	No relaxation
14	Copper(as Cu)	mg/l	BDL	BDL	BDL	BDL	0.05	1.5
15	Boron	mg/l	BDL	BDL	BDL	BDL	0.5	1
16	Nitrate (as NO ₃)	mg/l	5.4	4.6	4.6	5.4	45	No relaxation
17	Fluoride (as F)	mg/l	0.24	0.35	0.24	0.28	1	1.5
18	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	BDL	BDL	BDL	BDL	0.001	0.002
19	Mercury(as Hg)	mg/l	BDL	BDL	BDL	BDL	0.001	No relaxation
20	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	0.003	No relaxation
21	Selenium (as Se)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
22	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	0.01	0.05

Navin Kumar
नवा कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबन्धन) / DGM (ENVY. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारिबाग / Hazaribag



GROUND WATER REPORT								
23	Cyanide (as CN)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
24	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
25	Zinc (as Zn)	mg/l	BDL	BDL	BDL	BDL	5	15
26	Total Alkalinity	mg/l	177	184	147	186	200	600
27	Aluminium (as Al)	mg/l	BDL	BDL	BDL	BDL	0.03	0.2
28	Barium (as Ba)	mg/l	BDL	BDL	BDL	BDL	0.7	No relaxation
29	Ammonia (Total Ammonia -N)	mg/l	BDL	BDL	BDL	BDL	0.5	No relaxation
30	Silver (as Ag)	mg/l	BDL	BDL	BDL	BDL	0.1	No relaxation
31	Nickel (as Ni)	mg/l	BDL	BDL	BDL	BDL	0.02	No relaxation
32	Chromium (as Cr ⁺³)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
33	Manganese (as Mn)	mg/l	BDL	BDL	BDL	BDL	0.1	0.3
34	E.Coli	/100 ml	Absent	Absent	Absent	Absent	----	NOT DETECTABLE IN 100 ML SAMPLE
35	Total Coli forms	MPN/100 ml	Absent	Absent	Absent	Absent	-----	NOT DETECTABLE IN 100 ML SAMPLE
36	Conductivity	µS/cm	775	816	578	797	NOT SPECIFIED	NOT SPECIFIED

BDL- Below Detection Limit

***END OF TEST REPORT ***

JOIN HANDS TO SAVE ENVIRONMENT

FOR GLOBAL ENVIRO LABORATORIES


 CHECKED BY
 (INTEKHAB KHAN)(Technical Manager)

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 एक महानिरीक्षक (पर्यावरण प्रबंधन) : DGM (ENVT. MGMT.)
 (एनटीपीसी लिमिटेड) NTPC Limited
 भारत खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag


 AUTHORIZED SIGNATORY
 (SHIKHA BHATIYA)

Page No. 2 of 2



GROUND WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF JANUARY 2024

Name and Address of Customer: **M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)**

PAKRI BARWADIH COAL MINES								
GROUND WATER REPORT (15.01.2024)							Acceptable Limit	Permissible limit
S. No	PARAMETER	UNIT	RESULT				IS: 10500:2012	
			WELL AT AMBAJIT- (GW-5)	WELL AT HORAM (GW-6)	WELL AT BARKAGA ON (GW-7)	WELL AT DEWORIA KHURD- (GW-8)		
1	Colour	Hazen	<5.0	<5.0	<5.0	<5.0	5 Max	15 Max
2	Odour	....	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	....	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	3.7	2.6	1.7	2.6	1	5
5	pH	....	4.23	7.23	7.22	7.34	6.5-8.5	No relaxation
6	Residual Free Chlorine(as Cl ₂)	mg/l	ND	ND	ND	ND	0.2	1
7	Total Dissolved Solids	mg/l	476	486	478	398	500	2000
8	Total Hardness (as CaCO ₃)	mg/l	198	203	198	167	200	600
9	Calcium (as Ca)	mg/l	39.7	40.5	39.6	33.4	75	200
10	Magnesium	mg/l	25.3	24.6	24.0	20.3	30	100
11	Chloride (as Cl)	mg/l	128.6	131.4	129.4	107.6	250	1000
12	Sulphate	mg/l	38.0	48.5	58.2	38.0	200	400
13	Iron (as Fe)	mg/l	0.31	0.36	0.22	0.34	0.3	No relaxation
14	Copper(as Cu)	mg/l	BDL	BDL	BDL	BDL	0.05	1.5
15	Boron	mg/l	BDL	BDL	BDL	BDL	0.5	1
16	Nitrate (as NO ₂)	mg/l	4.6	4.4	4.1	4.7	45	No relaxation
17	Fluoride (as F)	mg/l	0.32	0.24	0.25	0.15	1	1.5
18	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	BDL	BDL	BDL	BDL	0.001	0.002
19	Mercury(as Hg)	mg/l	BDL	BDL	BDL	BDL	0.001	No relaxation
20	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	0.003	No relaxation
21	Selenium (as Se)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
22	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	0.01	0.05

Navin Kumar

नवा कुमार / NAVIN KUMAR
एन व्हाट्सवर्क (पर्यावरण प्रबंधन) / OGM (ENVY. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हाजारीबाग / Hazaribag



GROUND WATER REPORT

23	Cyanide (as CN)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
24	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	0.01	No relaxation
25	Zinc (as Zn)	mg/l	BDL	BDL	BDL	BDL	5	15
26	Total Alkalinity	mg/l	168	174	175	148	200	600
27	Aluminum (as Al)	mg/l	BDL	BDL	BDL	BDL	0.03	0.2
28	Barium (as Ba)	mg/l	BDL	BDL	BDL	BDL	0.7	No relaxation
29	Ammonia (Total Ammonia-N)	mg/l	BDL	BDL	BDL	BDL	0.5	No relaxation
30	Silver (as Ag)	mg/l	BDL	BDL	BDL	BDL	0.1	No relaxation
31	Nickel (as Ni)	mg/l	BDL	BDL	BDL	BDL	0.02	No relaxation
32	Chromium (as Cr +6)	mg/l	BDL	BDL	BDL	BDL	0.05	No relaxation
33	Manganese (as Mn)	mg/l	BDL	BDL	BDL	BDL	0.1	0.3
34	E. Coli	/100 ml	Absent	Absent	Absent	Absent	---	NOT DETECTABLE IN 100 ML SAMPLE
35	Total Coli forms	MPN/100 ml	Absent	Absent	Absent	Absent	---	NOT DETECTABLE IN 100 ML SAMPLE
36	Conductivity	μ S/cm	742	557	748	547	NOT SPECIFIED	NOT SPECIFIED

BDL- Below Detection Limit

***END OF TEST REPORT ***

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
 (INTEKHAB KHAN)(Technical Manager)


 AUTHORIZED SIGNATORY
 (SHIKHA BHATIYA)

Navin Kumar

नवा कुमार / NAVIN KUMAR
 सहायक प्रमुख (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

Page No. 2 of 2

GROUND WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF JANUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES						
GROUND WATER REPORT (15.01.2024)					Acceptable Limit	Permissible limit
S. No	PARAMETER	Unit	RESULT		IS: 10500:2012	
			BOREWELL NO.2-MDO	R&R COLONY DHENGA		
1	Colour	Hazen	<5	<5	5 Max	15 Max
2	Odour	....	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	....	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	1.6	2.7	1	5
5	pH	....	7.14	7.18	6.5-8.5	No relaxation
6	Residual Free Chlorine(as Cl ₂)	mg/l	N.D.	N.D.	0.2	1
7	Total Dissolved Solids	mg/l	416	418	500	2000
8	Total Hardness (as CaCO ₃)	mg/l	195	174	200	600
9	Calcium (as Ca)	mg/l	39.04	34.83	75	200
10	Magnesium	mg/l	23.71	21.23	30	100
11	Chloride (as Cl)	mg/l	109.5	110.0	250	1000
12	Sulphate	mg/l	47.2	53.0	200	400
13	Iron (as Fe)	mg/l	0.26	0.24	0.3	No relaxation
14	Copper(as Cu)	mg/l	BDL	BDL	0.05	1.5
15	Boron	mg/l	BDL	BDL	0.5	1
16	Nitrate (as NO ₃)	mg/l	5.3	5.6	45	No relaxation
17	Fluoride (as F)	mg/l	0.28	0.3	1	1.5
18	Phenolic Compound (as C ₆ H ₅ OH)	mg/l	BDL	BDL	0.001	0.002
19	Mercury(as Hg)	mg/l	BDL	BDL	0.001	No relaxation
20	Cadmium (as Cd)	mg/l	BDL	BDL	0.003	No relaxation
21	Selenium (as Se)	mg/l	BDL	BDL	0.01	No relaxation
22	Arsenic (as As)	mg/l	BDL	BDL	0.01	0.05

Page 1 of 2

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन व्हायरलैब (एनवायल प्रोजेक्ट) / DGM (ENVT. MGMT.)
(एनटीपीसी लिमिटेड) NTPC Limited
भारत कोयला एवं खनिज विभाग / COAL MINING PROJECTS
हजारिबाग / Hazaribag



GROUND WATER REPORT

23	Cyanide (as CN)	mg/l	BDL	BDL	0.05	No relaxation
24	Lead (as Pb)	mg/l	BDL	BDL	0.01	No relaxation
25	Zinc (as Zn)	mg/l	BDL	BDL	5	15
26	Total Alkalinity	mg/l	127	138	200	600
27	Aluminium (as Al)	mg/l	BDL	BDL	0.03	0.2
28	Barium (as Ba)	mg/l	BDL	BDL	0.7	No relaxation
29	Ammonia (Total Ammonia -N)	mg/l	BDL	BDL	0.5	No relaxation
30	Silver (as Ag)	mg/l	BDL	BDL	0.1	No relaxation
31	Nickel (as Ni)	mg/l	BDL	BDL	0.02	No relaxation
32	Chromium (as Cr + ⁶)	mg/l	BDL	BDL	0.05	No relaxation
33	Manganese (as Mn)	mg/l	BDL	BDL	0.1	0.3
34	E.Coli	/100 ml	Absent	Absent	----	NOT DETECTABLE IN 100 ML SAMPLE
35	Total Coli forms	MPN/100 ml	Absent	Absent	----	NOT DETECTABLE IN 100 ML SAMPLE
36	Conductivity	µS/cm	638	648	NOT SPECIFIED	NOT SPECIFIED

BDL- Below Detection Limit

***END OF TEST REPORT ***

FOR GLOBAL ENVIRO LABORATORIES


 CHECKED BY
 (INTEKHAB KHAN)(Technical Manager)


 AUTHORISED SIGNATORY
 (SHIKHA BHATIYA)

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 एम. ए. ए. (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एन. टी. पी. सी. लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Page No. 2 of 2

Desilting / Water Harvesting Structures construction / repair taken up by NTPC Limited in and around Pakribarwadih CMP.

SI No	Name of village	Water Recharge Activity	Surface area (Sq M)	GPS Coordinates		Water storage Capacity (Cum)	Description of pond in			Volume of Pond in m3	Annual Ground Water Recharge in m3	Remarks
				Latitude	Longitude		Length	Width	Avg. Depth			
1	Dadikala	Tari Ahar talab	2982	23°52'52.1"	85°12'30.22"	7455	65	24	2.01	3135.6	3657.36384	
2	Chepakala	Chepa Ahar talab	30415	23°90'60.05"	85°21'38.11"	76037.5	160	55	3.5	30800	35925.12	
3	Pakri-Barwadih	Barka Ahra talab deepening and desilting	13200	23°86'35.23"	85°22'43.19"	33000	126	35	3	13230	15431.472	
4	Urub	Padeo bagi Arhar pond (Bada talab) deepening and check dam repair	20000	23°53'59.63"	85°11'16.92"	50000	184	34	3.2	20019.2	23350.39488	
5	Garikala	Japotva Ahar pond deepening	4940	23°52'30.31"	85°09'54.74"	12350	92	28	2.5	6440	7511.616	
6	Kusumbha	Purna Ahar talab repair and deepening	6862	23°94'81.61"	85°27'82.54"	17155	87	32	2.5	6960	8118.144	
7	Banka	Banka talab	2900	23°98'13.9"	85°29'13.9"	7250	64	24	2.4	3686.4	4299.81696	
8	Petto	Badi talab	3816	23°86'33.39"	85°06'92.95"	9540	56	35	2	3920	4572.288	
9	Kodwe	Kodwe Talab	1280	23°26'48.16"	85°47'10.74"	3200	36	18	2	1296	1511.6544	
10	Langathu	New Water Recharge Pond construction	400	23°52'15.52"	85°12'43.27"	1000	28	11	2.09	643.72	750.835008	
11	Langathu	Roof top water recharge system	1500	23°52'19.49"	85°12'49.30"	1800					1152	80% of the stored rainwater will percolate to ground water.(1200 mm Avg Annual rainfall)
12	Hazaribagh	Zeel park desilting and repair (One side)	36000	24°00'98"	85°36'30"	108000	225	54	3	36450	42515.28	
											148795.99	

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 इन्फोसिस लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

RAIN WATER HARVESTING:

To increase the water availability for industrial and domestic purpose, rainwater harvesting systems is installed in the following locations in Pakri Barwadih Coal Mining Project. The water collected through rain water harvesting is stored for recharge & re-use of underground



**RAINWATER HARVESTING (ROOFTOP) LANGATU ADMIN CAMPUS
PAKRI BARWADIH COAL MINING PROJECT**
(BASED ON INJECTION WELL "V" WIRE SCREEN TECHNOLOGY)

INJECTION WELL TO RECHARGE DRINKING WATER BOREWELLS THROUGH "V" WIRE TECHNOLOGY
(FOR RAINWATER RECHARGE AND GROUND STORAGE AND RECOVERY)

Total No. of recharge pit - 7

Depth of Pit: -

- Recharge Pit - 4.38 mt
- Silt Pit - 1.98 mt

Radius of Pit: -

- Recharge Pit - 4.38 mt
- Silt Pit - 4.88 mt

Recharge capacity of each system
75 KL/Day

RWH System Installed by:
M/s Intact Environment Pvt. Ltd
New Delhi
www.intactenv.com/
info@intactenv.com

Rain Water Harvesting System at MDO Office, Langatu

Navin Kumar

नवा- कुमार / NAVIN KUMAR
 सप सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

WATER RECHARGE POND:



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन वलरवटक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन व्हाय एच डी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Details and photographs of check dams

(A) PAKWA NALA (Eastern Nala)			(B) KHORHA NALA (Western Nala)		
Check Dam	Reservoir Capacity (in Lakh cum)	Ground water Recharge (in Lakh cum/Yr)	Check Dam	Reservoir Capacity (in Lakh cum)	Ground water Recharge (in Lakh cum/Yr)
Check Dam No. (1)	0.56	11.98	Check Dam No. (1)	0.78	16.26
Check Dam No. (2)	1.75	37.54	Check Dam No. (2)	2.08	43.62
Check Dam No. (3)	0.48	9.99	Check Dam No. (3)	0.73	15.25
Check Dam No. (4)	0.37	7.80	Check Dam No. (4)	2.77	58.15
Check Dam No. (5)	1.84	38.66	Check Dam No. (5)	1.29	27.04
Total	5.00	105.97	Check Dam No. (6)	1.76	36.99
			Check Dam No. (7)	1.77	37.24
Grand Total (A) + (B)	16.18	340.52	Total	11.18	234.55



Navin Kumar

नवीन कुमार / NAVIN KUMAR

एन वन प्रोजेक्ट (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)

एनटीपीसी लिमिटेड / NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारीबाग / Hazaribag



Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन एचएनएचक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Details of Hand Pump and Bore wells Installed by NTPC, PB CMP in different Villages (2023-24)				
Sl. No.	Name of Village	Panchayat	No. of Hand Pumps Provided	No. of Bore Well Provided
1	Sirka	Katkamdag		1
2	Katkamdag	Katkamdag	1	1
3	GDM Balika Ucch Vidyalaya, Barkagaon, HZB	East Barkagaon	---	1
4	Between Ruddi main road to football ground Near Panchvahini Temple area.	Ruddi	1	2
5	Deoriya Kala	Bariatu	3	1
6	Jugra	Chepakalan	2	1
7	Kundalbagi	Kundalbagi		1
8	Nawadih, Basaria, Sirma, Kandaber	Kandaber	6	---
9	Bariatu	Bariatu	3	---
10	Beltu	Beltu	3	1
11	R & R Colony, Dhenga	East Barkagaon	3	1
TOTAL			22	10

Navin Kumar
नवीन कुमार / NAVIN KUMAR
 जल सहायक, पर्यावरण प्रबंधक (DCM (ENVY. MGMT.))
 इन्टीग्रेटेड लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com

WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF OCTOBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT

STP INLET & OUTLET ANALYSIS DATA MONTH OF OCTOBER 2023

Sl. No	Parameter	Unit	Mine Infra building at Langatu (Capacity: 20 KLD) Inlet Result		Mine Infra building at Langatu (Capacity: 20 KLD) Outlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Inlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Outlet Result		Standards (CPCB)	Protocol
			06.10.20	20.10.2	06.10.2	20.10.2	06.10.2	20.10.2	06.10.2	20.10.2		
			23	023	023	023	023	2023	2023	2023			2023
1	pH	—	6.93	6.92	7.36	7.33	6.57	6.53	7.27	7.24	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	156	158	72	64	151	156	67	66	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	236	251	74	50	257	245	65	53.2	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	68	60	12	11	59	48	18	13.1	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	11.7	12.3	3.5	3.1	11.4	12.1	3.2	3.9	10 mg/l	IS 3025 P-39

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES



CHECKED BY
(INTEKHAB KHAN) (Technical Manager)



नवा - कुमार / NAVIN KUMAR
जय प्रकाश प्रकल्प (पर्यावरण प्रकल्प) / DSM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



AUTHORISED SIGNATORY
(SHIKHA BHATIYA)



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT												
STP INLET & OUTLET ANALYSIS DATA MONTH OF NOVEMBER 2023												
Sl. No	Parameter	Unit	Mine Infra building at Langatu (Capacity: 20 KLD) Inlet Result		Mine Infra building at Langatu (Capacity: 20 KLD) Outlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Inlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Outlet Result		Standards (CPCB)	Protocol
			02.11.2023	16.11.2023	02.11.2023	16.11.2023	02.11.2023	16.11.2023	02.11.2023	16.11.2023		
1	pH	—	6.84	6.73	7.45	7.29	6.58	6.49	7.27	7.33	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	171	166	77	69	159	161	63	60	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	249	243	79	50	246	239	59	51	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	77	64	15	12	59	46	13	11	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	12.3	11.7	3.5	2.9	11.9	12.1	3.2	3.7	10 mg/l	IS 3025 P-39

***END OF TEST REPORT ***

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar
नवा - कुमार / NAVIN KUMAR
जय महल्लयक (पर्यावरण प्रबन्धन) / DGM (ENVY. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
शहरतः खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag

Global Enviro Laboratories
AUTHORISED SIGNATORY
(SHIKHA BHATIYA)



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF DECEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)


PAKRI BARWADIH COAL MINING PROJECT												
STP INLET & OUTLET ANALYSIS DATA MONTH OF DECEMBER 2023												
Sl. No.	Parameter	Unit	Mine Infra building at Langatu (Capacity: 20 KLD) Inlet Result		Mine Infra building at Langatu (Capacity: 20 KLD) Outlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Inlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Outlet Result		Standards (CPCB)	Protocol
			02.12.2023	16.12.2023	02.12.2023	16.12.2023	02.12.2023	16.12.2023	02.12.2023	16.12.2023		
1	pH	---	6.76	6.67	7.34	7.26	6.59	6.51	7.52	7.28	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	150	156	74	69	153	158	64	68	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	233	249	77	57	255	242	62	52	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	65	62	15	13	54	43	19	12	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	11.3	12.1	3.2	3.3	11.1	11.8	3.4	3.1	10 mg/l	IS 3025 P-39

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES


CHECKED BY
(INTEKHAB KHAN)(Technical Manager)


नवा - कुमार / NAVIN KUMAR
एन एम डी सी (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एन टी पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag


AUTHORISED SIGNATORY
(SHIKHA BHATIYA)





GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF JANUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT												
STP INLET & OUTLET ANALYSIS DATA MONTH OF JANUARY 2024												
Sl. No	Parameter	Unit	Mine Infra building at Langatu (Capacity: 20 KLD) Inlet Result		Mine Infra building at Langatu (Capacity: 20 KLD) Outlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Inlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Outlet Result		Standards (CPCB)	Protocol
			01.01.2024	15.01.2024	01.01.2024	15.01.2024	01.01.2024	15.01.2024	01.01.2024	15.01.2024		
1	pH	—	6.71	6.69	7.28	7.27	6.63	6.52	7.31	7.23	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	152	158	71	68	146	156	67	66	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	248	252	79	55	241	248	69	54	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	61	63	14	12	56	41	17	11	30 mg/l	IS 3025 P-44
5	Oil & Grease (D&G)	mg/L	11.2	12.4	3.1	3.2	11.4	11.4	3.5	3	10 mg/l	IS 3025 P-39

END OF TEST REPORT

JOIN HANDS TO SAVE ENVIRONMENT Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन एमएलएल (पर्यावरण प्रबंधन) : DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

AUTHORISED SIGNATORY
(SHIKHA BHATIYA)





GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF FEBRUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT												
STP INLET & OUTLET ANALYSIS DATA MONTH OF FEBRUARY 2024												
Sl. No	Parameter	Unit	Mine Infra building at Langatu (Capacity: 20 KLD) Inlet Result		Mine Infra building at Langatu (Capacity: 20 KLD) Outlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Inlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Outlet Result		Standards (CPCB)	Protocol
			01.02.2024	15.02.2024	01.02.2024	15.02.2024	01.02.2024	15.02.2024	01.02.2024	15.02.2024		
1	pH	---	6.48	6.69	7.35	7.28	6.51	6.43	7.58	7.69	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	154	151	71	67	151	152	62	63	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	230	242	75	59	252	256	51	50	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	68	68	10	12	58	53	16	16	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	11.4	12.9	3.1	3.2	11	11.5	3.2	3	10 mg/l	IS 3025 P-39

END OF TEST REPORT

JOIN HANDS TO SAVE ENVIRONMENT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी (पर्यावरण प्रबंधन)। DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF MAR 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT

STP INLET & OUTLET ANALYSIS DATA MONTH OF MAR 2024

Sl. No	Parameter	Unit	Mine Infra building at Langatu (Capacity: 20 KLD) Inlet Result		Mine Infra building at Langatu (Capacity: 20 KLD) Outlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Inlet Result		R & R at Colony Dhenga (Capacity: 1.5 MLD) Outlet Result		Standards (CPCB)	Protocol
			02.03.2024	16.03.2024	02.03.2024	16.03.2024	02.03.2024	16.03.2024	02.03.2024	16.03.2024		
1	pH	---	7.18	7.11	7.33	7.52	6.89	6.97	7.28	7.39	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	187	193	52	68	171	164	47	59	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	354.3	298.1	109.9	81.5	291.8	279.5	67.7	80.2	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	71	69	23	19	75	77	17	21	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	11.9	12.5	3.4	2.9	12.1	11.4	2.6	2.2	10 mg/l	IS 3025 P-39

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

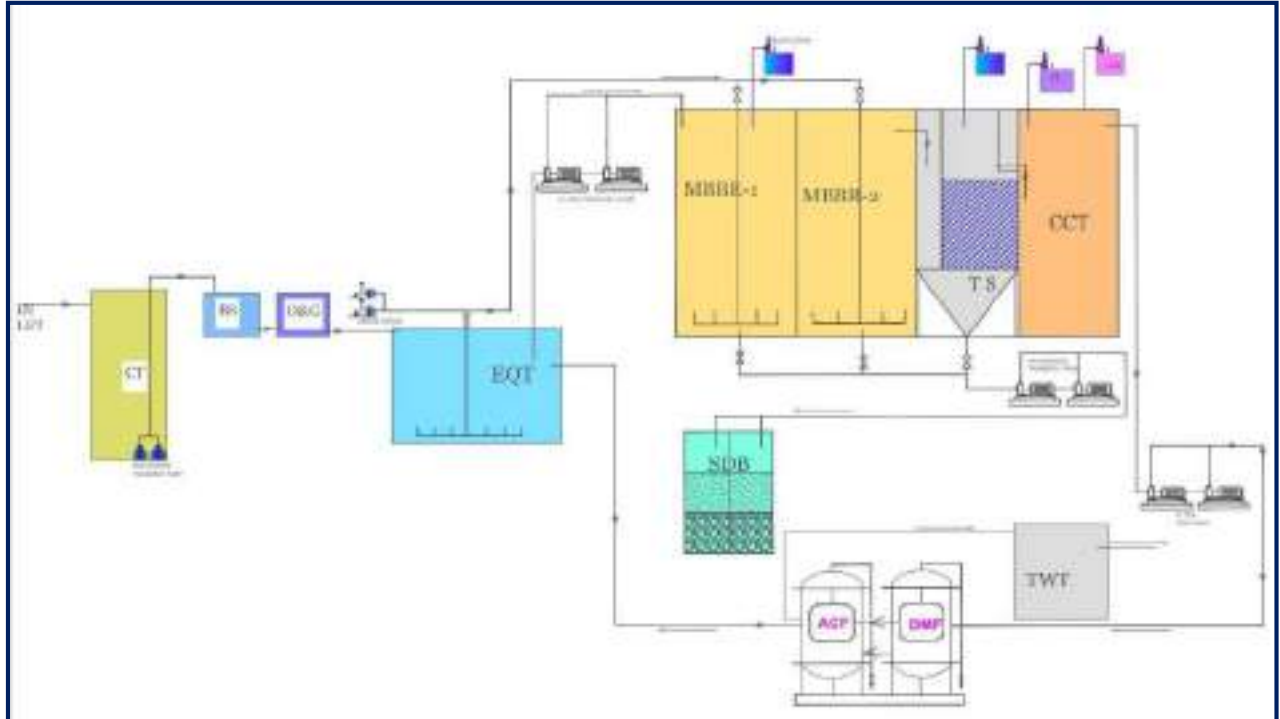

CHECKED BY
(INTEKHAB KHAN)


AUTHORISED SIGNATORY
(ARVIND KUMAR)

Navin Kumar
नवा कुमार / NAVIN KUMAR
जय महल प्रबंधक (पर्यावरण प्रबंधन) / DGM (ENVY. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag

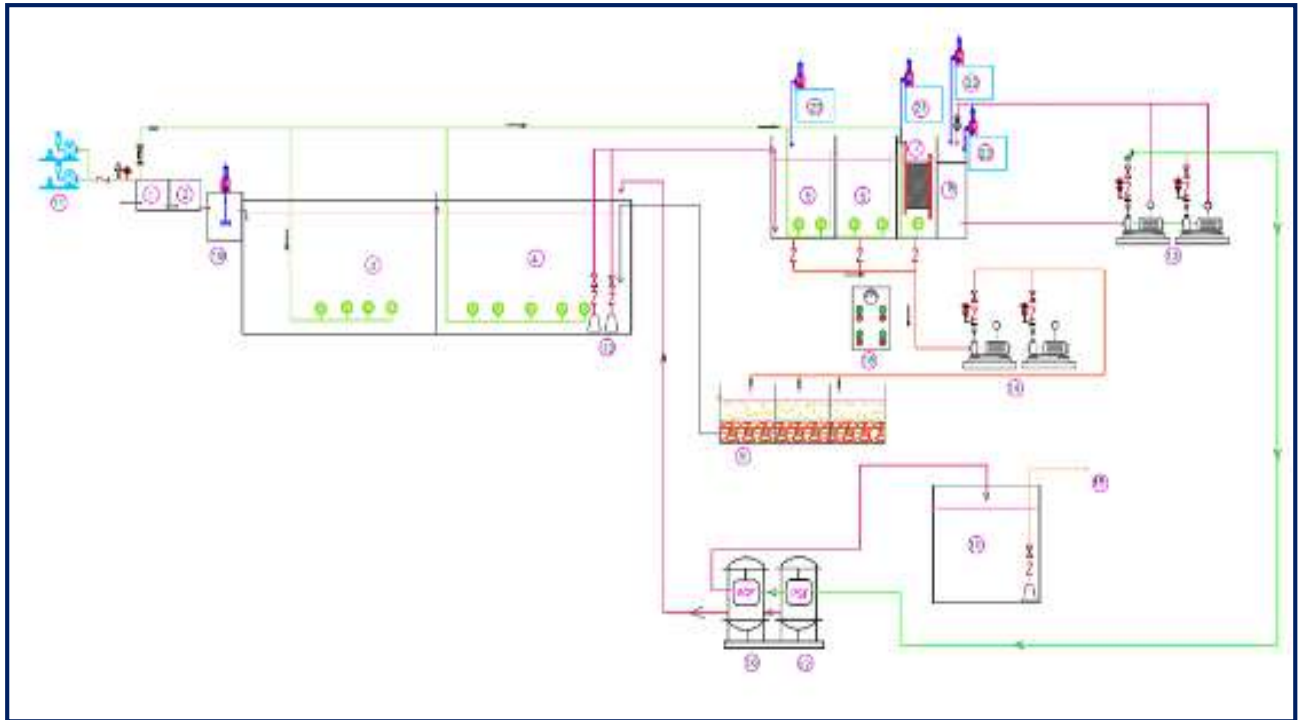


Photographs Sewage Treatment Plant:



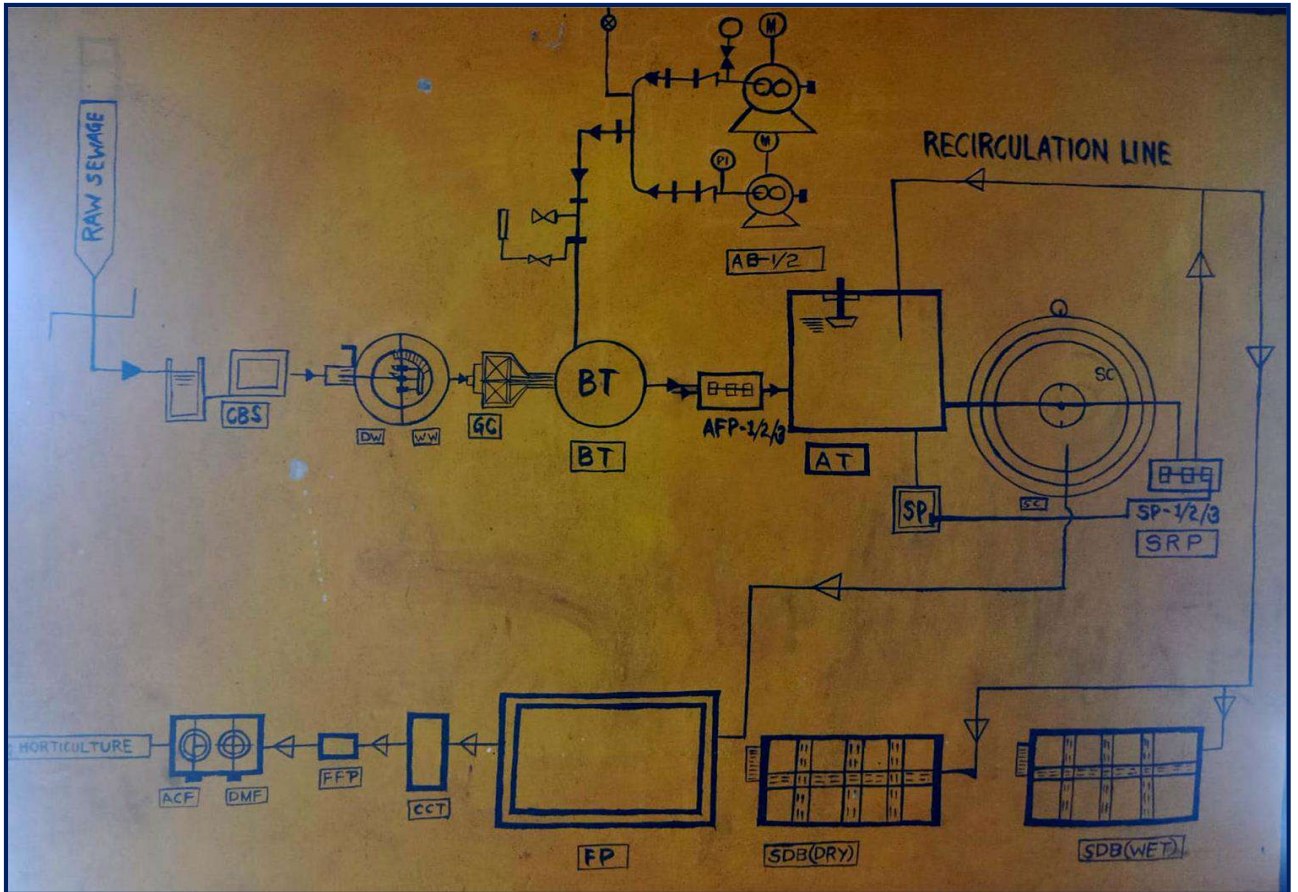
Latitude: 23.871408
Longitude: 85.215272
Elevation: 419.2417 m
Accuracy: 8.3m
Time: 09-07-2022 13:04
Note: Langatu Bakagson Hazaribag

Navin Kumar
नवा कुमार / NAVIN KUMAR
एन व्हायरलवक (पर्यावरण प्रबंधन) / DGM (ENVY. MGMT.)
(एनटीपीसी लिमिटेड) / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



300 KLD STP at MDO Colony

Navin Kumar
 नवा- कुमार / NAVIN KUMAR
 एम एन्वटम (पर्यावरण प्रबंधन) / DCM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



1.5 MLD STP at R&R Colony, Dhenga

Navin Kumar
 नवा- कुमार / NAVIN KUMAR
 एन व्हाट्सवर्क (पर्यावरण प्रकल्प) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028118
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com

WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF OCTOBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT

ETP INLET & OUTLET ANALYSIS DATA MONTH OF OCTOBER 2023

Sl. No.	Parameter	Unit	Inlet Result		Outlet Result		Standards (CPCB)	Protocol
			06.10.2023	20.10.2023	06.10.2023	20.10.2023		
1	pH	---	7.19	7.21	7.12	7.11	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	344	326	76	68	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	487	443	124	116	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BCD 3 day, at 27 °C)	mg/L	104	95	23	20	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	12.5	11.4	2.3	1.8	10 mg/l	IS 3025 P-39
6	Total Dissolved Solid (TDS)	mg/L	1564	1571	448	442	Not Specified	IS 3025 P-16
7	Manganese (Mn)	mg/L	N.D.	N.D.	N.D.	N.D.	2 mg/l	IS 3025 P-59
8	Chloride (Cl)	mg/L	643	611	124	115	Not Specified	IS 3025 P-32

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES



CHECKED BY
(INTEKHAB KHAN) (Technical Manager)


AUTHORISED SIGNATORY
(SHIKHA BHATIYA)

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एचएलएल (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag





GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT								
ETP INLET & OUTLET ANALYSIS DATA MONTH OF NOVEMBER 2023								
Sl. No.	Parameter	Unit	Inlet Result		Outlet Result		Standards (CPCB)	Protocol
			02.11.2023	16.11.2023	02.11.2023	16.11.2023		
1	pH	---	7.22	7.49	7.17	7.36	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	324	314	67	59	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	492	454	125	119	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27°C)	mg/L	95	84	22	19	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	12.8	11.7	2.8	1.6	10 mg/l	IS 3025 P-39
6	Total Dissolved Solid (TDS)	mg/L	1684	1592	457	451	Not Specified	IS 3025 P-16
7	Manganese (Mn)	mg/L	N.D.	N.D.	N.D.	N.D.	2 mg/l	IS 3025 P-59
8	Chloride (Cl)	mg/L	613	628	136	125	Not Specified	IS 3025 P-32

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)



Navin Kumar

नवा - कुमार / NAVIN KUMAR
एन एम डी सी (एन वी टी सी प्रोजेक्ट) / DGM (ENVT. MGMT.)
एन टी पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF DECEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT								
ETP INLET & OUTLET ANALYSIS DATA MONTH OF DECEMBER 2023								
Sl. No.	Parameter	Unit	Inlet Result		Outlet Result		Standards (CPCB)	Protocol
			02.12.2023	16.12.2023	02.12.2023	16.12.2023		
1	pH	---	7.12	7.25	7.16	7.21	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	338	321	78	65	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	452	425	125	112	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	104	91	25	18	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	12.1	11.3	2.5	1.9	10 mg/l	IS 3025 P-39
6	Total Dissolved Solid (TDS)	mg/L	1558	1552	447	436	Not Specified	IS 3025 P-16
7	Manganese (Mn)	mg/L	N.D.	N.D.	N.D.	N.D.	2 mg/l	IS 3025 P-59
8	Chloride (Cl)	mg/L	629	609	121	103	Not Specified	IS 3025 P-32

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES


CHECKED BY
(INTEKHAB KHAN)(Technical Manager)


AUTHORISED SIGNATORY
(SHIKHA BHATIYA)

Navin Kumar
नवा कुमार / NAVIN KUMAR
एन एन पी सी लिमिटेड (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एन टी पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT

FOR THE MONTH OF JANUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT

ETP INLET & OUTLET ANALYSIS DATA MONTH OF JANUARY 2024

Sl. No.	Parameter	Unit	Inlet Result		Outlet Result		Standards (CPCB)	Protocol
			01.01.2024	15.01.2024	01.01.2024	15.01.2024		
1	pH	----	7.14	7.28	7.18	7.22	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	332	326	75	61	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	448	424	123	113	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	106	95	26	19	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	12.2	11.8	2.3	1.8	10 mg/l	IS 3025 P-39
6	Total Dissolved Solid (TDS)	mg/L	1556	1547	449	438	Not Specified	IS 3025 P-16
7	Manganese (Mn)	mg/L	N.D.	N.D.	N.D.	N.D.	2 mg/l	IS 3025 P-59
8	Chloride (Cl)	mg/L	627	614	126	105	Not Specified	IS 3025 P-32

***END OF TEST REPORT ***

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES


CHECKED BY
(INTEKHAB KHAN)(Technical Manager)


AUTHORISED SIGNATORY
(SHIKHA BHATIYA)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एक महत्वपूर्ण (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF FEBRUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT

ETP INLET & OUTLET ANALYSIS DATA MONTH OF FEBRUARY 2024

Sl. No.	Parameter	Unit	Inlet Result		Outlet Result		Standards (CPCB)	Protocol
			01.02.2024	15.02.2024	01.02.2024	15.02.2024		
1	pH	---	7.18	7.33	7.14	7.28	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	346	322	70	67	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	441	420	124	115	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	103	97	21	17	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	12.5	11.9	2.9	1.4	10 mg/l	IS 3025 P-39
6	Total Dissolved Solid (TDS)	mg/L	1549	1563	442	439	Not Specified	IS 3025 P-16
7	Manganese (Mn)	mg/L	N.D.	N.D.	N.D.	N.D.	2 mg/l	IS 3025 P-59
8	Chloride (Cl)	mg/L	636	611	124	116	Not Specified	IS 3025 P-32

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN) (Technical Manager)

AUTHORISED SIGNATORY
(SHIKHA BHATIYA)
Ghaziabad

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन पी सी लिमिटेड (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



WASTE WATER SAMPLING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF MAR2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT

ETP INLET & OUTLET ANALYSIS DATA MONTH OF MAR2024

Sl. No.	Parameter	Unit	Inlet Result		Outlet Result		Standards (CPCB)	Protocol
			02.03.2024	18.03.2024	02.03.2024	18.03.2024		
1	pH	---	7.08	7.01	7.45	7.38	5.5-9.0	IS 3025 P-11
2	Total Suspended Solid (TSS)	mg/L	589	576	57	66	100 mg/l	IS 3025 P-17
3	Chemical Oxygen Demand	mg/L	275	297.2	98	118	250 mg/l	IS 3025 P-58
4	Biological Oxygen Demand (BOD 3 day, at 27 °C)	mg/L	72.0	76.0	27.0	29.0	30 mg/l	IS 3025 P-44
5	Oil & Grease (O&G)	mg/L	13.8	12.9	2.8	3.3	10 mg/l	IS 3025 P-39
6	Total Dissolved Solid (TDS)	mg/L	1687	1745	725	639	Not Specified	IS 3025 P-16
7	Manganese (Mn)	mg/L	N.D.	N.D.	N.D.	N.D.	2 mg/l	IS 3025 P-59
8	Chloride (Cl)	mg/L	629	583	218	236	Not Specified	IS 3025 P-32

***END OF TEST REPORT ***

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES


CHECKED BY
(INTEKHAB KHAN)

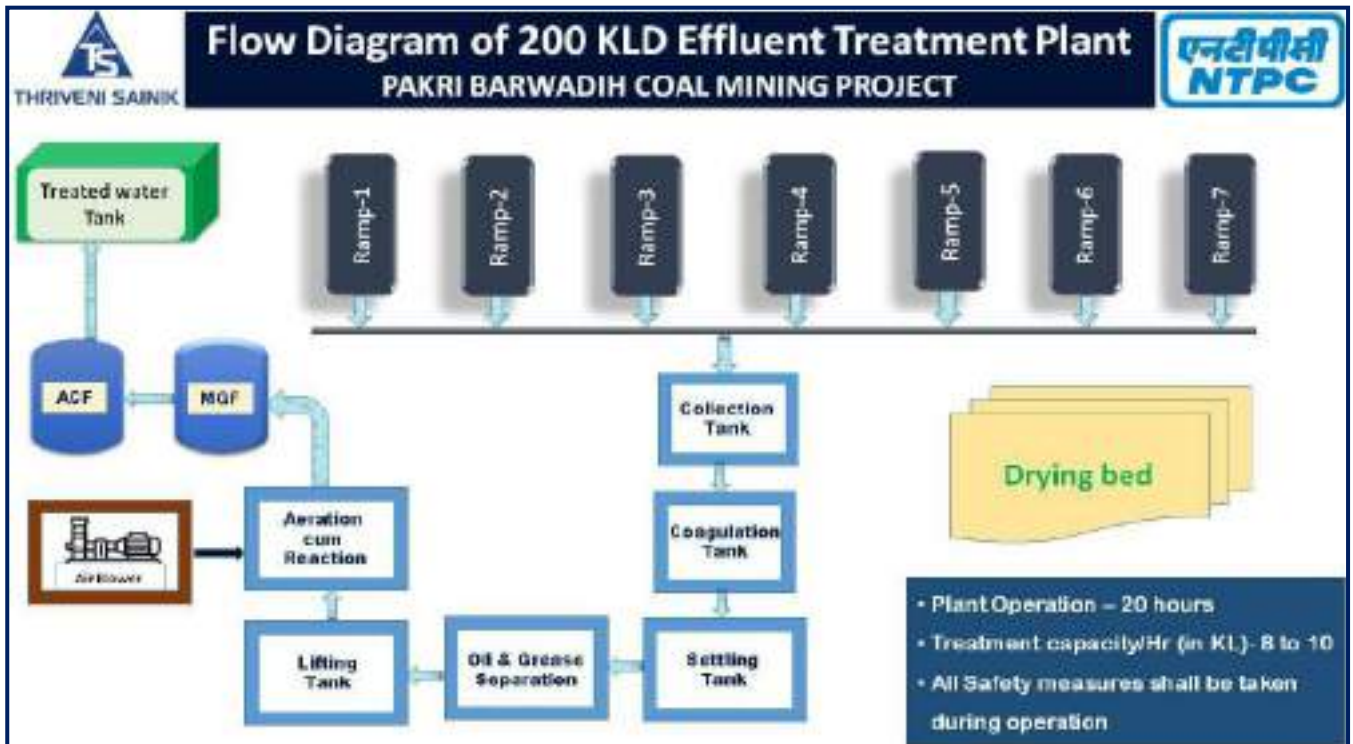

AUTHORISED SIGNATORY
(ARVIND KUMAR)

Navin Kumar

नवा - कुमार / NAVIN KUMAR
एन एचएचएचएच (पर्यावरण प्रबंधन)। DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



Photographs of Effluent Treatment Plant Flow & Operational Diagram



Navin Kumar

नवा - कुमार / NAVIN KUMAR
 एन व्हायरलवक (पर्यावरण प्रबंधन)। DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Annexure-8

PHOTOGRAPH OF SETTLING TANK AT CHP AREA



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन संयंत्र/ COAL MINING PROJECTS
हज़ारबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
ज्वालनाशुक्ति (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सीएसएल (पर्यावरण प्रबंधन) | OCM (ENVY MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ | COAL MINING PROJECTS
हाज़ारीबाग / Hazaribag

Plantation on Dump Slope



OB Dump "C"

Navin Kumar

नवा कुमार / NAVIN KUMAR
 एन सी ई डी (पब्लिक प्रोसेसिंग) / ENDS (PVT. LDM.)
 एन टी पी सी लिमिटेड / NTPC Limited
 भारत कोयला परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



Navin Kumar

नवा कुमार / NAVIN KUMAR
एन एम डी सी (एन वी सी प्रॉजेक्ट्स) / DGM (ENVT. MGMT.)
एन टी पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Plantation Done at East Quarry



Navin Kumar

नवीन कुमार / NAVIN KUMAR
जल सहायक (प्रवर्धन प्रबन्ध) / JGM (ERT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एच सी प्रकल्प (पर्यावरण प्रबन्धन) / ECM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल सहायक (पर्यावरण प्रबंधन) / JGM (ENVT. MGMT.)
(एनटीपीसी लिमिटेड) NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एचएनएल (प्रवाहक प्रकल्प) / JGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT,					
NTPC LIMITED, HAZARIBAGH , JHARKHAND					
A. PLANTATION / DISTRIBUTION DONE BY NTPC LTD					
Sl No	Year	No of plants planted / Distributed	Cum no. of plants	Location	Remarks
1	2008	200	200	Inside Site Office, Barkagaon	Misc shady plants
2	2010	70	270	Rani talab, Budua mahadev mandir	Mango plants
3	2010	200	470	Distributed to villagers	Fruit bearing plants
4	2011	125	595	Distributed to villagers	Fruit bearing plants
5	2012	225	820	Distributed to villagers	Fruit bearing plants
6	2012	130	950	Plantation at Vinobha bhawe university	Shady plants
7	2013	480	1430	Distributed to villagers	fruit bearing and shady plants
8	2013	40	1470	Infront of site office, barkagaon	Casurina, Bottle plam
9	2013	30	1500	on the bund barka ahar	pakribarwadih
10	2013	25	1525	Ramsagra talab , back of site office	Barkagaon
11	2014	300	1825	Distribution	
12	2015	118	1943	ITI	
13	2015	30	1973	Site office, barkagaon	Kanel , bouganvilia
14	2015	90	2063	Utkramith madya vidyalay, kusumbha	Kanel , bouganvilia
15	2015	220	2283	Chhath talab, hazaribagh	
16	2015	417	2700	Distributed to villagers	Shady plants
17	2016	1000	3700	Distributed to villagers	Shady and fruit bearing plants
18	2016	4500	8200	In and around langathu site office and approach road	Shady plants through MDO
19	2017	690	8890	In and around Sikri township and langathu site office	On 05.06.17, 09.06.17, Misc shady and fruit bearing plants
20	2017	5000	13890	In and around Hazaribagh, Neem , Karanj, Jamun , Kathal,	Distributed through SDM, Hazaribagh in and around Hazaribagh on 17.06.17
21	2017	800	14690	In Village Langathu at the vacant place, Gulmohar, Neem, Arjun, Karanj, Imli, Jamun, Kathal, Amrud	Involving the villagers of Langathu on 20.06.17
22	2017	500	15190	In Village Langathu at the vacant place, Gulmohar, Neem, Arjun, Karanj, Imli, Jamun, Kathal, Amrud	Involving the employees on 21.06.17
23	2017	580	15770	In Village Langathu at the vacant place, Gulmohar, Neem, Arjun, Karanj, Imli, Jamun, Kathal, Amrud	Involving the employees on 22.06.17
24	2017	150	15920	Plantation at SSB Camp, Nagari , Neem and Karanj	Involving the SSB security Personnel
25	2017	1550	17470	For plantation in and around Hazaribagh, Neem , Karanj, Jamun , Kathal,	Distributed through DFO, Hazaribagh West Forest Division in and around Hazaribagh on 13.07.17
26	2017	2500	19970	In Village Langathu at the vacant place, Gulmohar, Neem, Arjun, Karanj, Imli, Jamun, Kathal, Amrud	On 15.07.17 during Van Mahotsav involving villagers and employees
27	2017	500	20470	Plantation along the dividers, sides of the haul road, Kanel	At the mining premise
28	2017	935	21405	Plantation near the top soil dump	At the mining premise on topsoil dump along with the grass seeding
29	2017	1000 Kg	--	Mixed Grass seeding on the top soil dump	At the Mine
30	2017	260	21665	In Village Arahara near the dump, garland drain and fencing, Mine approach. Gulmohar, Neem, Arjun, Karanj,	On 17.07.17 during Van Mahotsav involving villagers and employees
31	2017	2450	24115	In Village Arahara at the vacant place, Gulmohar, Neem, Arjun, Karanj, Jamun, Kathal.	Mix Plantation

Sl No	Year	No of plants planted / Distributed	Cum no. of plants	Location	Remarks
32	2017	1150	25265	In the village Devaria Khurd, on the edge of Khora Nala, Neem, Arjun, Karanj, Jamun, Gulmohar	Block Plantation near Khora Nalla
33	2017	450	25715	In Village Arahara near the dump, garland drain and fencing, Mine approach. Gulmohar, Neem, Arjun, Karanj,	Mix Plantation
34	2017	1300	27015	On the Dump Slope, Neem, Arjun, Karanj, Jamun, Gulmohar	Mix Plantation
35	2017	845	27860	In the village Devaria Khurd, on the edge of Khora Nala, Neem, Arjun, Karanj, Jamun, Gulmohar	Mix Plantation
36	2017	935	28795	Dispatch Road on the edge of Khora Nala, Neem, Arjun, Karanj, Jamun, Gulmohar	Mix Plantation
37	2018	2000	30795	Hazaribag, Jharkhand	Misc shady plants
38	2018	200	30995	GDM Girls High School	Misc shady plants
39	2018	250	31245	Middle School, Sonbarsa	Flower & Shady plants
40	2018	7500	38745	Safety Zone Plantation - Deworia Village, Urub Village	Misc shady plants
41	2018	3750	42495	Along the Pakwa Nala - East Quarry	Mix Plantation
42	2018	8750	51245	Near Sikri township, East Quarry dump area, langathu office.	Misc shady plants
43	2019	25500	76745	OB Dump "C" Slope	Misc shady plants
44	2019	520	77265	Along the dispatch Raod (Langatu to Substation)	Misc shady plants
45	2019	2000	79265	Vacant land, Sonbarsa Village, Near Nursery	Misc shady plants
46	2019	8500	87765	Safety Zone Plantation - Deworia Village, Urub Village	Misc shady plants
47	2019	6200	93965	Dump "D" Slope East Quarry	Misc shady plants
48	2019	3200	97165	Plantation Program in Township area, Sikri	Misc shady plants
49	2019	1000	98165	R&R Colony	Misc shady plants
50	2019	2200	100365	Along the Pakwa Nala - East Quarry	Misc shady plants
51	2019	300	100665	Distributed to villagers and School	Misc shady plants
53	2019	500	101165	Gandhi Maidan, Matwari, Hazaribagh	Misc shady plants
54	2019	1080	102245	Banadag Railway Siding	Misc shady plants
55	2020	14766	117011	Along the Nallah Side (Embankment)	Misc shady plants
57	2020	24340	141351	OB Dump "C" Slope	Misc shady plants
58	2020	2770	144121	OB Dump "C" Surface	Misc shady plants
59	2020	400	144521	Banadag Railway Siding	Misc shady plants
60	2020	160	144681	Along the dispatch Raod (Sonbarsa village to Langatu)	Misc shady plants
61	2021	9065	153746	Along the Lathorwa Nala	Misc shady plants
62	2021	54763	208509	OB Dump "C" Slope	Misc shady plants
63	2021	3437	211946	OB Dump "C" Surface	Misc shady plants
64	2021	1630	213576	Along the Pakwa Nala	Misc shady plants
65	2021	2204	215780	In and around Sikri township	Misc shady plants
66	2021	3018	218798	Along the Nallah Side (Embankment)	Misc shady plants
67	2021	142	218940	Along the dispatch Raod (Sonbarsa village to Langatu)	Misc shady plants
68	2021	5735	224675	Lathorwa Nala	Misc shady plants
69	2021	575	225250	Distributed to villagers	Misc shady plants
70	2022	13175	238425	Dump "A" Slope	Misc shady plants
71	2022	100	238525	Vacant Land, Arahara Village, Near CHP	Fruity & shady plants
72	2022	1620	240145	OB Dump "C" Slope & Surface	Misc shady plants
73	2022	3720	243865	Along the northern sides of main approach road, Conveyor Line	Misc shady plants
74	2022	3735	247600	East Quarry	Misc shady plants
75	2022	320	247920	Stockpile Area	Misc shady plants

SI No	Year	No of plants planted / Distributed	Cum no. of plants	Location	Remarks
76	2023	1545	249465	Along the Northern side of the main Approach Road	Peepal, Bargad, Gular, Neem, Kadam Arjun
77	2023	32650	282115	Dump A	Chakundi, Bamboo
78	2023	1506	283621	Safety Zone Plantation	Peltophorum, Sarvan, Babul
79	2023	10869	294490	90 M Dump C	Bamboo, Arjun
80	2023	1496	295986	Embakment Area	Kadam, Gular, Imali, Amaltas, Semal
81	2023	8000	303986	Khora Nala Side,	Seed Ball
82	2023	9387	313373	Khora Nala Side,	Babul, Peltophorum, Sarvan, Maha Neem
83	2023	565	313938	Langatu Office Road	Kadam, Sarvan, Peltophorum, Mahaneem, Arjun, Bottel Brash, Foxtel.
84	2023	650	314588	Stockpile Area	Malasian Sal, Chakundi
85	2023	360	314948	Embakment Area (Miyawki Plantation)	Sal, Maha Neem, Babul, Kadam, Amla, Sagwan, Jamun, Sarifa, Kaner, Hibiscus, Gamhar, Baheda, Semal, Kari Patta, Guava, Bel Patra, Sahtoot, Peepal, Amaltas, Mahua, Kachnar, Kathal, Arjun
86	2023	3000	317948	R&R Colony	Mango, Bel, Gauava, Kathal etc.
87	2023	3772	321720	East Quarry	Bamboo, Kadam, Chakaundi, Mahogany, etc.
88	2023	5177	326897	Nala side Slope Plantation	Chakundi.
89	2023	672	327569	Along the northern sides of main approach road	Gulmohar


 नवीन कुमार / NAVIN KUMAR
 सहायक (परिचालन) / DGM (ERVT. MGMT.)
 (एनपीसी लिमिटेड) NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Deposition of amount in ESCROW account of PBCMP			
Sl.no.	FY	Amount in Lakhs	Remarks
1	2016-17	5.67	
2	2017-18	5.96	
3	2018-19	6.25	
4	2019-20	6.57	
5	2020-21	6.9	
6	2021-22	7.24	
7	2022-23	7.6	
8	2023-24	7.932	
9	2024-25	8.3287		Advance Payment
Total		62.4507	

Navin Kumar
 नवा- कुमार / NAVIN KUMAR
 डी. जे. एम. (परिचालन) / JGM (ERVT. MGMT.)
 (एनटीपीसी लिमिटेड) NTPC Limited
 भारत खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004

Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No. JSPCB/HO/RNC/CTO-18605537/2024/379

Dated : 2024-03-10

Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

1. Application (s) dated 2024-03-08 of NTPC LIMITED PAKRI BARWADIH COAL MINING PROJECT, Occupier Name :NEERAJ JALOTA for consent under section 25 (1)(b)/25 (1) (c)/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(1) of the Air (Prevention & Control of Pollution) Act,1981..

2. **Documents Relied Upon:**
 - (a) The content of recent Environmental Clearance (EC) issued vide J-11015/692/2007-IA-II(M), dated 06.03.2024 for Expansion of Pakri Barwadih Coal Mining Project (West & East Quarry) from 15 MTPA to 18 MTPA.
 - (b) The content of Environmental Clearance (EC) issued by MoEF, New Delhi vide,
 - (i) ref no. J11015/692/2007-IA.II(M), dated 19.05.2009;
 - (ii) ref. no. J11015/692/2007-IA.II(M), dated 29.06.2016;
 - (iii) ref. no. J11015/692/2007-IA.II(M), dated 07.12.2017;
 - (iv) ref. no. J11015/38/2007-IA.II(M), dated 14.08.2018;
 - (iv) ref. no. J11015/692/2007-IA.II(M), dated 10.11.2020;
 - (v) ref. no. J11015/692/2007-IA.II(M), dated 09.11.2023 and
 - (vi) ref. no. J11015/692/2007-IA.II(M), dated 15.01.2024.
 - (c) The content of Forest Clearance (FC), issued by MoEF, New Delhi for an area of 1026.438 Ha, Ref. No. F No.- 8-56/2009-FC, dated. 17.09.2010.
 - (d) The content of Consent to Establish (CTE),
 - (i) vide ref. no. 4763, dated 18.12.2007;
 - (ii) vide ref. no. JSPCB/HO/RNC/CTE-18445212/2024/105 Dated 08.03.2024 for the mining of Coal- 18 MTPA.
 - (e) The content of Consent to operate (CTO), granted for unexpanded part vide Ref. No. JSPCB/HO/RNC/CTO-16378207/2023/1154 dated 28.06.2023 for the mining of Coal- 15 MTPA valid for the period upto 31.12.2024.
 - (f) The content of authorization under HoWM Rules' 2016 vide ref. no. JSPCB/HO/RNC/HWM2129164/2018/41, dated 16.05.2018.
 - (g) The content of Inspection Report (I/R) vide memo no. 409, dated 09.03.2024 of R O, R O-Cum-Lab, Hazaribagh.

3. The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to operate the project in Mauza -thana 47,48,49,5152,55,56 , P S -BARKAGAON BLOCK HAZARIBAG , District - HAZARIBAGH , as follows:

Project	Site-Area		Investment (Rs)	Product & Capacity	Period of CTO
	Plot Nos.	Area			Date of issue To
Before Expansion	As per EC	As per EC	5044.68 Cores	Coal- 18 MTPA	28/02/2025

(A) Specific Conditions:

1. That, the occupier shall construct toe wall and garland drain around the OB dump.
2. That, occupier shall maintain proper housekeeping within the premises.
3. That, the occupier shall reclaim mined out areas with OB and shall plant trees on them.
4. That, the occupier shall do Over Burden management properly as prescribed in environmental clearance.
5. That, the occupier shall construct catch drain, siltation pond retaining wall of appropriate size to arrest silt & sediment flows from soil, OB dump and mineral dump.
6. That, the occupier shall inform to Regional Office-Cum- Lab, Hazaribagh and Head Office, JSPC Board, at Ranchi within 24 hrs from the time of closure or opening of the plant.
7. That, the occupier shall operate & maintain ETP with workshop of heavy vehicles.
8. That, the occupier shall ensure washing of tyres of vehicles used for transportation of coal and also ensure proper covering of the same to avoid any dust emission.
9. That, the occupier shall ensure that crushers at the CHP shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
10. That, the occupier shall operate and maintain the ETP for workshop and CHP.
11. That, the occupier shall operate and maintain the STP for the township/colony to treat the domestic effluents to prescribed standards and for green belt development or reuse in project activities.

12. That, the occupier shall operate and maintain the CAAQMS and PM 10 analyzer having CPCB approved technology and USEPA certification.

13. That, the occupier shall follow the transportation of coal from defined route.

14. That, the occupier shall comply all the conditions of EC and submit its compliance report to the Board and other organizations as applicable alongwith analysis reports.

15. That, the occupier shall submit compliance of this CTO conditions every year alongwith the recent analysis reports successively.

16. That, the occupier shall submit applications for renewal of consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent with requisite fee and documents showing compliance of all of the above conditions.

17. That, his CTO supersedes the CTO granted earlier vide ref. no. JSPCB/HO/RNC/CTO-16378207/2023/1154 dated 28.06.2023 for the mining of Coal- 15 MTPA valid for the period upto 31.12.2024.

18. That, the occupier shall carry out mining in only those forest areas for which Forest Clearance has been obtained from the Competent Authority.

(B) General Conditions :

(1) That, the occupier shall maintain the **National Ambient Air Quality Standard** given below:

S N	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual 24 hours	40 80	30 80
3.	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual 24 hours	40 60	40 60
5.	Ozone(O ₃), µg/m ³	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m ³	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m ³	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH ₃) µg/m ³	Annual 24 hours	100 400	100 400
9.	Benzene (C ₆ H ₆) µg/m ³	Annual	05	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m ³	Annual	01	01
11.	Arsenic (As) ng/m ³	Annual	06	06
12.	Nickel (Ni) ng/m ³	Annual	20	20

**Note : Serial no. 1 to 4 – Mandatory
Serial no. 5 to 12 As applicable for specific type of industry.**

- (2) That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:

S N	Parameter	Standard
1	Particulate Matter	150 mg/Nm,3

- (3) That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:

S N	Parameter	Standard
1	Total Suspended Solids	100 mg/L
2	BOD	30 mg/L
3	COD	250 mg/L
4	Oil & Grease	10 mg/L

- (4) That, the occupier shall dispose of solid wastes as follows:

S N	Waste Type	Mode of Disposal
1	Hazardous Carbonaceous Wastes	In co-processing in high temperature furnaces or kilns
2	Hazardous Non-Carbonaceous Wastes	In TSDF
3	Non-Carbonaceous Non-Hazardous solid wastes/ Mine Over Burden	As a substitute of Soil or Mineral

- (5) That, the occupier shall keep D G Set(s) within acoustic enclosure and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.
- (6) That, the occupier shall install and maintain Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.
- (7) That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- (8) That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.
- (9) That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited / ISO 9001:2008 and OHSAS 18001:2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.

- (10) That, this CTO is valid subjected to the validity of mining Lease/Mining Plan/Ecofriendly/Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.
- (11) That, this CTO is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ occupier.
- (12) That, this CTO shall not in any way, adversely affect or jeopardize the legal proceeding , if any, instituted in the past or that could be , instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
- (13) That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules made there under.
4. **That, this CTO shall not absolve the occupier from making compliance of other statutory prescribed under any law or direction of courts or any other instrument for the time being in force.**
5. **That, this CTO is being issued on the basis of information/ documents/ certificate submitted by the unit. This CTO will be revoked if any of the information/documents/certificates/undertaking given by the occupier is found false/fictitious/forged in future.**
6. **The Order shall be valid subject to compliance of all other legal requirements applicable to the unit.**
7. **The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alteration in conditions of this consent.**

This is issued with the approval of the Competent authority

[Y. K. Das]

Member Secretary

Memo No. : JSPCB/HO/RNC/CTO-
18605537/2024/379

Dated : 2024-03-10

Copy to: M/s NTPC Limited, Pakribarwadih Coal Mining Project, Distt Hazaribagh, Jharkhand/ Chief Inspector of Factories, Ranchi/ Director of Industry, Government of Jharkhand, Ranchi/ Director of Mines, Government of Jharkhand, Ranchi/ Deputy Commissioner, Hazaribagh/ DFO, Hazaribagh/ DMO, Hazaribagh/ R O, Hazaribagh for information & ensuring compliance of the above.

[Y. K. Das]

Member Secretary

Water Sprinkling System at Pakri Barwadig Coal Mining Project



Navin Kumar

नवीन कुमार / NAVIN KUMAR
का. महासंचालक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एचएसडी (प्रारंभिक चरण) / DCM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवा- कुमार / NAVIN KUMAR
एन एन पी सी लिमिटेड (एन एन पी सी लिमिटेड) NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन एचएसएल (एनवीएल) प्रबन्ध (JCGM) (EVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



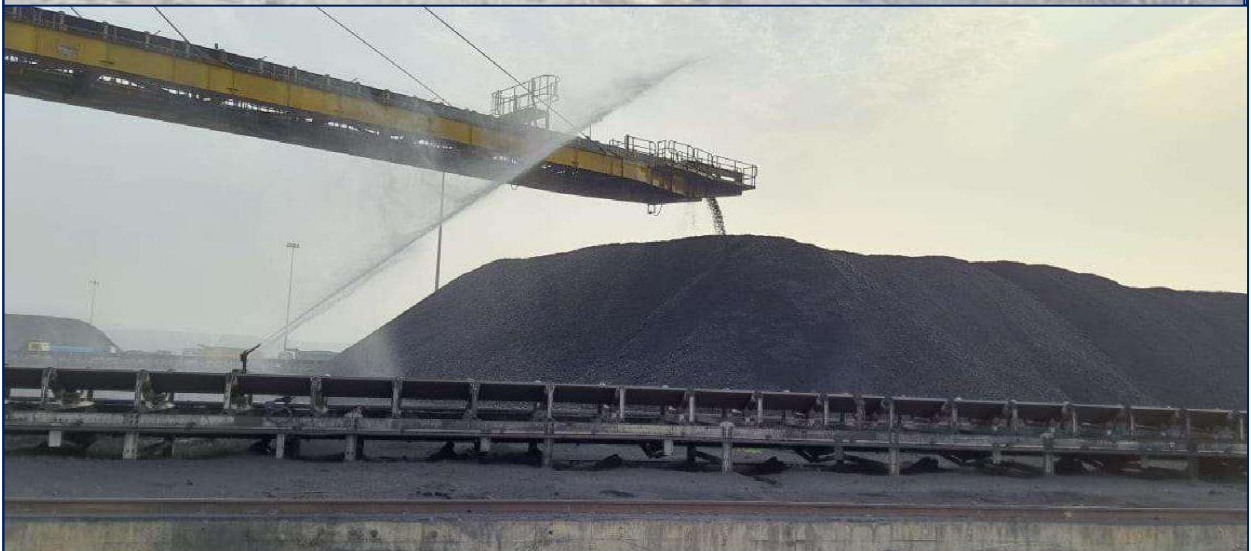
Navin Kumar

नवा- कुमार / NAVIN KUMAR
सा महानगर (पब्लिक वर्क्स) / COAL MINING WORKS
एनपीसी लिमिटेड / NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar

नवा- कुमार / NAVIN KUMAR
का महासंचालक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन सी ई सी (एन सी ई सी) / DCM (ENVT. MGMT.)
एन सी ई सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Fog Canon



Water Fog

Coal is falling



Coal

Water Fog



Water Fog over
Stacked coal

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन एच सी डी (एन एच सी डी) / DCM (ENVT. MGMT.)
एन पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Dust Suppression through Water Tanker



Navin Kumar

नवीन कुमार / NAVIN KUMAR
का सहायक (प्रबंधन) / DGM (EVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सी ई सी (एनवीएन सी) / DCM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (Oct-2023 to March-2024)		
SI NO	Purpose of Expense	Amount (in Rs.)
(A) For dump slope stabilization		
1	Coir Mating, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	9825108.86
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Water tanker and its maintenance	34523421.03
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	3924340.00
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		8141990.00
(E) Environment Staff Salary		3282600.00
(F) Scientific Study		1825000.00
Total Amount		61522459.89

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रशासन) / DGM (ENVT. MGMT.)
 (एनटीपीसी लिमिटेड) / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (April-23 to Sept.-23)		
SI NO	Purpose of Expense	Amount (in Rs.)
(A) For dump slope stabilization		
1	Coir Mating, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	9405476.86
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Water tanker and its maintenance	34523421.03
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	3223161.00
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		
		3217472.00
(E) Environment Staff Salary		
		3282600.00
(F) Scientific Study		
		1000000.00
Total Amount		54652130.89

Navin Kumar

नवा- कुमार / NAVIN KUMAR
 का महासंचालक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 (पर्यावरणीय विभाग) NTPC Limited
 भारत खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

MALHOTRA & GUPTA

CHARTERED ACCOUNTANTS

Plot no-1056,First Floor,Udyog Vihar
Phase-1,Dundhera,Gurugram,Haryana-122016



Mobile: +91-8285705545

Tel: 0120-4732032

E-mail: cahimanshujain3001@gmail.com

Ref No.

Date: 11/01/2024

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that I have examined the related documents for environmental expenses incurred for **TRIVENI SAINIK MINING PRIVATE LIMITED (PROJECT - NTPC LTD, PAKRI BARWADIH COAL PROJECT BARKAGAON)** from April 2022 to March 2023 which amounting to 10,62,16,888/- (Ten crore sixty two lakhs sixteen thousand eight hundred eighty eight Rupees Only). These Expenses consists of following Annexure-A which is attached herewith.

FOR MALHOTRA & GUPTA
CHARTERED ACCOUNTANTS
FRN:035799N



Himanshu Jain

CA HIMANSHU JAIN
(PARTNER)
M.NO-560505
UDIN: 24560505BKCYZW8845

Navin Kumar

नवीन कुमार / NAVIN KUMAR
जय महाराज (प्रोबेशन ऑफिसर) / JGM (ENVT. MGMT.)
प्रोपर्टी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (April-2022 to March-2023)		
SI NO	Purpose of Expense	Amount (in Rs.)
(A) For dump slope stabilization		
1	Coir Mating, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	14130683.45
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Permanent Sprinkler	72645012.66
2	Water tanker and its maintenance	
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	6758885.00
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		
		4675007.00
(E) Environment Staff Salary		
		5851800.00
(F) Water treatment & ETP Maintainace		
		1468000.00
(G) Scientific Study		
		687500.00
Total Amount		106216888.11



Himanshu Jain

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

TO WHOM SO EVER IT MAY CONCERN

Based on our examination of the books of accounts and records, as produced before us for verification, of Thriveni Sainik Mining Private Limited ("the Company") having its registered office at 7th Floor, Corporate Tower, Ambience Mall, NH-8, Gurgaon, Haryana-122001, we hereby certify that the Company has incurred expenditure towards environmental expenditure for its project **NTPC LTD-PAKRI GARWADIH COAL PROJECT, BARKAGON** from April 2021 to March 2022 is Rs 926.43 Lakhs (Rupees Nine Hundered Twenty Six Lakhs and Forty Three Thousand only) as per details given in Annexure 1

This certificate has been provided at the request of the Company is not intended for general circulation or publication

The above figures are true and correct as per documents and information provided to us for our verification.

For **PANKAJ DHINGRA & Co.**

Chartered Accountants

FR No. 0230834



(CA Pankaj Dhingra)

Partner

MN. No. 510815

UDIN : 22510815AQM1TT4220

Place : Rohtak

Date : 25.07.2022

Navin Kumar

नवीन कुमार / NAVIN KUMAR
ज्वा. प्रशासक (पर्यावरण प्रशासक) / JGM (ENV. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (April-2021 to March-2022)		
SINO	Purpose of Expense	Amount in INR Lakhs
(A) For dump slope stabilization		
1	Coir Matting, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintenance	151.14
2	Dozer Operator Salary, HSD Cost and Maintenance charge	
(B) For dust suppression		
1	Permanent Sprinkler	564.12
2	Water tanker and its maintenance	
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	70.32
2	Environmental Monitoring (AAD, Water, Noise etc)	
(D) Nursery development and plantation		
		21.77
(E) Environment Staff Salary		
		30.69
(F) Water treatment & ETP Maintenance		
		45.71
(G) Certification		
		0.85
(H) Scientific Study		
		4.63
(I) Water Recharge Measures		
		36.71
(J) Miscellaneous Expense		
		0.48
Total Amount		926.43

*Navin Kumar*नवीन कुमार / NAVIN KUMAR
एन सी ई ओ (ऑडिटर) / (CGM) (ENV. MGMT.)
प्रोविन्स (एन सी ई ओ) NTPC Limited
जिला हरीद्वार (एन सी ई ओ) COAL MINING PROJECTS
हरीद्वार / Haridwar



GAURAV CHOPRA & ASSOCIATES

Chartered Accountants

Ref. No.

Date : 02/07/2021

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that I have examined the related documents for environmental expenses incurred for **TRIVENI SAINIK MINING PRIVATE LIMITED (PROJECT-NTPC LTD, PAKRI BARWADIH COAL PROJECT BARKAGON)** from April 2020 to March 2021 which amounting to 9,74,54,170/- (Nine Crore Seventy Four Lacs Fifty Four Thousand and Seventy Rupees Only). These Expenses Consist of following Annexure-A which is attached herewith.

FOR GAURAV CHOPRA & ASSOCIATES

GAURAV CHOPRA

(M. NO- 418565)

UDIN: 21418565AAAABO8898



नवीन कुमार / NAVIN KUMAR
एन पी सी लिमिटेड (एनपीसी लिमिटेड) / DGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

104, AKS Heights 9th & 10th Sardapura C Road, Jodhpur (Raj.)

Contact No. 0291-2641122, 94144-98356

Email : gauravchopraca@gmail.com

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (April-2020 to March-2021)		
SI NO	Purpose of Expense	Amount (in Rs.)
(A) For dump slope stabllization		
1	Coir Mating, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	28,984,191.42
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Permanent Sprinkler	43,973,816.69
2	Water tanker and its maintenance	
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	7,817,473.30
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		
6,568,550.42		
(E) Environment Staff Salary		
7,384,800.00		
(F) Water treatment & ETP Maintainace		
2,118,350.00		
(G) Certification		
468,900.00		
(H) Miscellaneous Expense		
138,088.00		
Total Amount		97,454,169.83



Navin Kumar

नवीन कुमार / NAVIN KUMAR
 जे. एम. ए. (एन. एम. ए. एम.) / JGM (ENV. MGMT.)
 एन. टी. पी. सी. लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag



GAURAV CHOPRA & ASSOCIATES

Chartered Accountants

Ref. No.

Date : 26/11/2020

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that I have examined the related documents for environmental expenses incurred for **TRIVENI SAINIK MINING PRIVATE LIMITED (PROJECT-NTPC LTD, PAKRI BARWADIH COAL PROJECT BARKAGON)** from April 2019 to March 2020 which amounting to 16,20,82,483/- (Sixteen Crore Twenty Lacs Eighty Two Thousand Four Hundred Eighty Three Only). These Expenses Consist of following Annexure-A which is attached herewith.

FOR GAURAV CHOPRA & ASSOCIATES

GAURAV CHOPRA

(M. NO- 418565)

UDIN: 20418565AAAAAT5479



नवा- कुमार / NAVIN KUMAR
का. व. प्र. (पर्यावरण प्र.)/ (CGM) ENVT. MGMT.
एनपीसी लिमिटेड / NTPC Limited
कोल खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

104, AKS Heights 9th & 10th Sardapura C Road, Jodhpur (Raj.)

Contact No. 0291-2641122, 94144-98356

Email : gauravchopra@gmail.com

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (April 2019 to March 2020)		
SI NO	Purpose of Expense	Amount (In Rs.)
(A) For dump slope stabilization		
1	Coir Matting, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	73,099,492.70
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Permanent Sprinkler	60,393,753.17
2	Water tanker and its maintenance	
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	9,391,214.70
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		
		5,466,338.00
(E) Environment Staff Salary		
		7,741,440.00
(F) Water treatment & ETP Maintainace		
		3,662,742.00
(G) Surface Runoff Recharge		
		3,100,000.00
(H) Certification		
		1,950,799.88
(I) Miscellaneous Expense		
		376,702.20
Total Amount		162,082,482.65

Navin



Navin Kumar

नवीन कुमार / NAVIN KUMAR
 जल सहायक (पर्यावरण प्रबंधन) / JGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



GAURAV CHOPRA & ASSOCIATES

Chartered Accountants

Ref. No.

Date : 25/09/2019

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that I have examined the related documents for environmental expenses incurred for TRIVENI SAINIK MINING PRIVATE LIMITED (PROJECT- NTPC LTD, PAKRI BARWADIH COAL PROJECT BARKAGON) from April 2018 to March 2019 which amounting to 11,62,03,315/- (Eleven Crore Sixty Two Lacs Three Thousand Three Hundred Fifteen Only). These Expenses Consist of following Annexure-A which is attached herewith.

FOR Gaurav Chopra & Associates

GAURAV CHOPRA

(M. NO- 418565)

UDIN- 19418565AAAAA04381



नवीन कुमार / NAVIN KUMAR
का सहायक (पर्यावरण प्रबंधन) / JGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
मीनार खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

104, AKS Heights 9th & 10th Sardapura C Road, Jodhpur (Raj.)

Contact No. 0291-2641122, 94144-98356

Email : gauravchopraca@gmail.com

PAKRI BARWADIH COAL MINING PROJECT OF NTPC		
Environmental Expenditure for the FY (April 2018 to March 2019)		
SI NO	Purpose of Expense	Amount (in Rs.)
(A) For dump slope stabilization:		
1	Coir Matting, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	4,73,78,336.60
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Permanent Sprinkler	4,87,49,865.45
2	Water tanker and its maintenance	
(C) Environmental Monitoring		
1	Annual Maintenance Contract of Instruments	74,18,667.00
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		
		17,08,699.00
(E) Environment Staff Salary		
		66,12,000.00
(F) Water treatment & ETP Maintainace		
		34,47,729.00
(G) Certification		
		7,35,076.00
(H) Miscellaneous Expense		
		1,52,941.72
Total Amount		11,62,03,314.77

(Saw) 

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 का. प्रशासक (पर्यावरण प्रशासन) / JGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

ACGC & Associates

Chartered Accountants

104, Aks Heights 9th & 10th Sardarpura, 'C' Road, JODHPUR (Raj.)
Contact No. : 0291-2641122 ,9772591864, 9414498356
E-mail: acgcassociates@gmail.com
Website : www.acgcassociates.icai.org



Ref. No.

Date 18/05/2018

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that I have examined the related documents for environmental expenses incurred for TRIVENI SAINIK MINING PRIVATE LIMITED (PROJECT-NTPC LTD, PAKRI BARWADIH COAL PROJECT BARKAGON) from April 2017 to March 2018 which amounting to 10,84,21,227/- (Ten Crore Eighty Four Lacs Twenty One Thousand Two Hundred Twenty Seven Only). These Expenses Consist of following Annexure-A which is attached herewith.

FOR ACGC & ASSOCIATES

GAURAV CHOPRA

(M. NO- 418565)



Navin Kumar

नवीन कुमार / NAVIN KUMAR
का सहकारक (पर्यावरण प्रबन्धन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

PAKRI BARWADIH COAL MINING PROJECT OF NTPC

Environmental Expenditure for the FY (April 2017 to March 2018)

SI NO	Purpose of Expense	Amount (in Rs.)
(A) For dump slope stabilization		
1	Coir Matting, Gabion Box, Retaining Wall, Garland Drain, Settling Pit and its Maintainance	77,304,660.54
2	Dozer Operator Salary, HSD Cost and Maintainace charge	
(B) For dust suppression		
1	Permanent Sprinkler	22,704,829.36
2	Water tanker and its maintenance	
(C) Environmental Monitoring		
1	Recalibration of Instruments / equipments	4,133,096.00
2	Environmental Monitoring (AAQ, Water, Noise etc.)	
(D) Nursery development and plantation		
		1,033,287.00
(E) Environment Staff Salary		
		2,517,864.00
(F) Water treatment & ETP Maintainace		
		727,490.00
Total Amount		108,421,226.90



Navin Kumar
नवीन कुमार / NAVIN KUMAR
का. प्रशासक (पर्यावरण प्रशासन) / DGM (ENVT. MGMT.)
प्र.प्रा.सी. लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

A C G C & Associates

Chartered Accountants

104, Aks Heights 9th & 10th Sardarpura, 'C' Road, JODHPUR (Raj.)
Contact No. : 0291-2641122 , 9772591864, 9414498356
E-mail: acgcassociates@gmail.com
Website : www.acgcassociates.icai.org



Ref. No.

Date 23/03/2018

TO WHOMSOEVER IT MAY CONCERN

I hereby certify that I have examined the related documents for environmental expenses incurred for **TRIVENI SAINIK MINING PRIVATE LIMITED (PROJECT-NTPC LTD, PAKRI BARWADIH COAL PROJECT BARKAGON)** from May 2016 to March 2017 which amounting to 3,47,65,165/- (Three Crore Forty Seven Lacs Sixty Five Thousand One Hundred Sixty Five Only). These Expenses Consist of following Annexure-A which is attached herewith.

FOR A C G C & ASSOCIATES

GAURAV CHOPRA

(M. NO- 418565)



Navin Kumar

नवीन कुमार / NAVIN KUMAR
ज. सं. सं. सं. (प्र. सं. सं. सं.) / JGM (ENVT. MGMT.)
एन. टी. पी. सी. लिमिटेड / NTPC Limited
कोयला खनन प्रोजेक्ट्स / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

CCTV PHOTO



Navin Kumar
नवीन कुमार / NAVIN KUMAR
का महानिरीक्षक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
भारत खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



Navin Kumar
नवा- कुमार / NAVIN KUMAR
का महासंचालक (पर्यावरण विभाग) / DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हज़ारीबाग / Hazaribag

PHOTOGRAPH OF NUKKAD NATAK PROGRAM FOR CELEBRATION OF WED 2023



Navin Kumar
वडा- कुमर / NAVIN KUMAR
का. प्रकल्पक (पर्यावरण प्रबन्धन) / OGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोला खनन परियोजना / COAL MINING PROJECTS
हजारीबाग / Hazaribag



REDMI NOTE 8 PRO
PIC BY UPENDORA



REDMI NOTE 8 PRO
PIC BY UPENDORA

Navin Kumar

ND - 00000 / NAVIN KUMAR
DGM (ENVT. MGMT.)
(NTPC Limited)
NTPC Limited
COAL MINING PROJECTS
HAZARIBAG / Hazaribag



पत्रांक 1711

887 34-12-78
24-8-16 26-8-16
25-8-16 17-8-16

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद,

क्षेत्रीय कार्यालय-सह-प्रयोगशाला, पी०टी०सी० चौक, मटवारी रोड, हजारीबाग।

दिनांक 22/8/16

प्रेषक

दिनेश प्रसाद सिंह,
क्षेत्रीय पदाधिकारी।

सेवा में,

महाप्रबंधक,
मेसर्स पकरी-बरवाडीह माइंस,
एन०टी०पी०सी० लि०, हजारीबाग।

विषय: मेसर्स पकरी बरवाडीह कोल माइनिंग प्रोजेक्ट, एन०टी०पी०सी० लि० का Environment Quality Monitoring Stations की स्थापना के संबंध में।

महाशय,

उपर्युक्त विषयक आपके पत्रांक 229 दिनांक 30.06.2016 एवं पर्वद पत्रांक बी - 3420, रौंची, दिनांक 02.08.2016 के आलोक में मेसर्स पकरी बरवाडीह कोल माइनिंग प्रोजेक्ट, बड़कागाँव, हजारीबाग के पर्यावरणीय स्वीकृति के तहत Buffer Zone, Core Zone में Environment Quality Monitoring हेतु मैप में दर्शाये गये बिन्दुओं का निरीक्षण किया गया। इससे ऐसा प्रतीत हुआ कि पर्यावरणीय स्वीकृति के अनुरूप ही ये सभी स्टेशन स्थापित किये जा रहे हैं।

अतः आपके उक्त पत्र में दर्शाये गये AAQ, Fugitiv Dust, Ground Water Quality, Ground Water Level, Surface Water Quality, Noise Level, Soil Quality एवं Metrological Monitoring Stations को स्थापित करने हेतु अनुमोदन किया जा रहा है।

विश्वासभाजन

22/8/16

(दिनेश प्रसाद सिंह)
क्षेत्रीय पदाधिकारी

चिंदन कुंठ
22/8/16
(चिंदन कुंठ्यादव)
वै०सहा०

अशोक
22/8/16
(अशोक कुंठ सिंह)
सहा०वै०पदा०

महाप्रबंधक पी.बी.।सी.।वी

पी.एम.एस
24/8/16

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन०टी०पी०सी० लि० (एन०टी०पी०सी० लि०) (एन०टी०पी०सी० लि०) (एन०टी०पी०सी० लि०)
(एन०टी०पी०सी० लि०) (एन०टी०पी०सी० लि०) (एन०टी०पी०सी० लि०)
NTPC Limited
COAL MINING PROJECTS
हजारीबाग / Hazaribag

23667
24/8/16



887
24-8-16
25-8-16

04-1278
26-8-16
27-8-16

10 69
24-8-16

943

झारखण्ड राज्य प्रदूषण नियंत्रण पर्षद,

क्षेत्रीय कार्यालय-सह-प्रयोगशाला, पी०टी०सी० चौक, मटवारी रोड, हजारीबाग।

दिनांक 22/8/16

पत्रांक 1711

प्रेषक,

दिनेश प्रसाद सिंह,
क्षेत्रीय पदाधिकारी।

सेवा में,

महाप्रबंधक,
मेसर्स पकरी-बरवाडीह माइंस,
एन०टी०पी०सी० लि०, हजारीबाग।

विषय: मेसर्स पकरी बरवाडीह कोल माइनिंग प्रोजेक्ट, एन०टी०पी०सी० लि० का Environment Quality Monitoring Stations की स्थापना के संबंध में।

महाशय,

उपर्युक्त विषयक आपके पत्रांक 229 दिनांक 30.08.2016 एवं पर्षद पत्रांक बी - 3420, रॉंची, दिनांक 02.08.2016 के आलोक में मेसर्स पकरी बरवाडीह कोल माइनिंग प्रोजेक्ट, बड़कागाँव, हजारीबाग के पर्यावरणीय स्वीकृति के तहत Buffer Zone, Core Zone, में Environment Quality Monitoring हेतु मैप में दर्शाये गये बिन्दुओं का निरीक्षण किया गया। इससे ऐसा प्रतीत हुआ कि पर्यावरणीय स्वीकृति के अनुरूप ही ये सभी स्टेशन स्थापित किये जा रहे हैं।

अतः आपके उक्त पत्र में दर्शाये गये AAQ, Fugitiv Dust, Ground Water Quality, Ground Water Level, Surface Water Quality, Noise Level, Soil Quality एवं Metrological Monitoring Stations को स्थापित करने हेतु अनुमोदन किया जा रहा है।

विश्वासभाजन

(Signature)

(दिनेश प्रसाद सिंह)
क्षेत्रीय पदाधिकारी

(Signature)
22/8/16
(चन्दन कुंयादव)
वै०सहा०

(Signature)
22/8/16
(अशोक कुं सिंह)
सहा०वै०पदा०

(Signature)
24/8/16
M. V. Singh
(Signature)

~~महाप्रबंधक पी.बी.सी.बी~~

(Signature)
24/8/16

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन०टी०पी०सी० लि० (एन०टी०पी०सी० लि०) (ENV. DEPT.)
एन०टी०पी०सी० लि० (एन०टी०पी०सी० लि०) NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

23661
24/8/16



JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI-834004
Phone. - 2400852, 2400851 Fax :- 0651-2400850, Website:-www.jspcb.org

Ref. Letter No. B-3420

Ranchi, Dated: 01/18/16

From

R P Kumar
Section Head, Hazaribagh

To

Regional Officer
JSPC Board, Hazaribagh

Sub: Regarding M/s Pakri Barwadih Coal Mining, NTPC setting of Environment Quality Monitoring Stations

Sir,

With reference to your letter Ref. No. 1572 dated 22.07.2016, you are requested to visit the site and select the suitable point for installation of Ambient Quality Monitoring Stations to be setup by NTPC and report the same to this office.

Yours Faithfully,

(R P Kumar)

Section Head, Hazaribagh

Navin Kumar

नवीन कुमार / NAVIN KUMAR
जल सहायक (पर्यावरण प्रबन्ध) / JGM (ENV. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



पत्रांक 1572

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद,

राष्ट्रीय कार्यालय-सह-प्रयोगशाला, पी०टी०सी० चौक, मटवारी रोड, हजारीबाग।

दिनांक 22/7/16

प्रेषक,

डी०पी० सिन्हा
राष्ट्रीय पदाधिकारी।

सेवा में,

सदस्य सचिव,
झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद, राँची।

विषय: मेसर्स पकरी बरवाडीह कोल माइनिंग प्रोजेक्ट, NTPC Ltd. की Environment Quality Monitoring Stations की स्थापना के संबंध में।

महाराज,

सेवा में सूचित करना है कि NTPC Ltd. के मेसर्स पकरी बरवाडीह कोल माइनिंग प्रोजेक्ट, बड़कागाँव, हजारीबाग का पर्यावरणीय स्वीकृति के तहत Buffer Zone एवं Core Zone में Environment Quality Monitoring Stations fixed करने हेतु पत्र चम्पा हुआ है। पत्र के साथ मैप में स्थापित होने वाले Location को दर्शाया गया है।

अतः अनुरोध है कि मैप में दर्शाये गये Location को अनुमोदित करने का कृपया कार्य करें।

अनुष्ठान- इकाई से प्राप्त मैप एवं लोकेशन की प्रती।

दिनांक 22/7/16
डी०पी० सिन्हा
राष्ट्रीय पदाधिकारी

Navin Kumar
नवीन कुमार / NAVIN KUMAR
ज्य. सहायक (पर्यावरण) (SE)/JGM (ENV. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



O/c

605

एन टी पी सी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

पीएबीसी, सीएबीसी, एवं केंडी कोल माइनिंग प्रोजेक्ट
PB, CB & KD Coal Mining Projects

Ref:No.7010/PBCM/Mining/16/F-38/229

Date: 30.06.2016.

To,

The Regional Officer,
Jharkhand State Pollution Control Board,
JSPCB Regional office,
PTC Chowk, Hazaribagh Jharkhand.825301.

Sub: - Establishment of Location of the Environment Quality Monitoring Stations for Pakri Barwadih Coal Mining Project –reg

Ref :- Env Clearance Letter No.J-11015/692/2007-IA.II(M) Dated 19th May 2009.


Dear Sir,


NTPC Limited is operating Pakri Barwadih Coal Mining Project near Barkagaon Block. As per the General Condition No III of the Environment Clearance granted by MoEF & CC vide Letter No.J-11015/692/2007-IA.II(M) Dated 19th May 2009, "Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO₂, NO_x and heavy metals such as Hg, Pb, Cr, As, etc. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board."

It is requested to kindly advise the concerned to identify the locations for establishing all the Environment Quality Monitoring stations for Pakri Barwadih Coal Mining Project.

Thanking you,

Yours sincerely,


A.K.Dash,
General Manager,
PB,CB Min,
NTPC Ltd.,
Hazaribagh.(Jharkhand)

Received
hno
8/7/16


पकरी बरवादीह, चट्टी-बरियातु एवं करेदारी कोल माइनिंग प्रोजेक्ट, पगमिल रोड, हजारीबाग-825301
Pakri Barwadih, Chatti-Bariatu & Keredari Coal Mining Projects, Pugmil Road, Hazaribagh-825301
Ph.: 06546-270622, 270855 Fax: 06546-270744, 270852

Registered Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi – 110 003

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन एनटीपीसी लिमिटेड (एनटीपीसी लिमिटेड) (एनटीपीसी लिमिटेड) (एनटीपीसी लिमिटेड)
NTPC Limited
COAL MINING PROJECTS
Hazaribagh / Hazaribagh

**LOCATION OF ENVIRONMENTAL QUALITY MONITORING STATIONS FOR
PAKRIBARWADIH COAL MINING PROJECT,
BARKAGAOAN, HAZARIBAGH DISTRICT, JHARKHAND.**

Refer general Condition No III of Environmental Clearance Granted by MoEF vide EC clearance Ltr. No. J-1105/692/2007-IA.II (M) dated 19th May 2009.

Quoted Condition

"Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO₂, NO_x and heavy metals such as Hg, Pb, Cr, As, etc. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board".

Proposed plan:

As per condition the project has identified following monitoring stations for Ambient Air quality, Fugitive emission and dust fall. The detailed monitoring station is as follows.

Ambient Air Quality (Four parameters Monitoring) – PM 10, PM 2.5, SO₂&NO_x

SL.No	Station Name	Zone	Reference No
1	VILLAGE URUB Western side from the central of the coal Block	Core Zone	AAQ – C : 1
2	VILLAGE NAGARI North side from the center of the coal block	Core Zone	AAQ – C : 2
3	VILLAGE LANGATHU Southern side from the center of the coal block	Core Zone	AAQ – C : 3
4	VILLAGE PAKRIBARWADIH Eastern Side from the center of coal block.	Core Zone	AAQ – C : 4
5	VILLAGE KANDABER Western side of the coal block	Buffer Zone	AAQ – B : 5
6	VILLAGE GARIKALAN Southern side of the coal block	Buffer Zone	AAQ – B : 6
7	VILLAGE DHENGA South Eastern side of the coal block	Buffer Zone	AAQ – B : 7
8	VILLAGE KUSUMBHA North Eastern side of the coal block	Buffer Zone	AAQ – B : 8

Note: The Monitoring frequency will be followed on weekly twice in each station except monsoon period.

Ambient Air Quality (Heavy Metals)

SL.No	Station Name	Zone	Reference No
1	VILLAGE URUB Western side from the central of the coal Block	Core Zone	AAQ - C : 1
2	VILLAGE NAGARI North side from the center of the coal block	Core Zone	AAQ - C : 2
3	VILLAGE LANGATHU Southern side from the center of the coal block	Core Zone	AAQ - C : 3
4	VILLAGE PAKRIBARWADIH Eastern Side from the center of coal block.	Core Zone	AAQ - C : 4
5	VILLAGE KANDABER Western side of the coal block	Buffer Zone	AAQ - B : 5
6	VILLAGE GARIKALAN Southern side of the coal block	Buffer Zone	AAQ - B : 6
7	VILLAGE DHENGA South Eastern side of the coal block	Buffer Zone	AAQ - B : 7
8	VILLAGE KUSUMBHA North Eastern side of the coal block	Buffer Zone	AAQ - B : 8

Fugitive Emission Monitoring:

SL.No	Station Name	Zone	Reference No
1	Excavation area	Core Zone	FD - C : 1
2	Haul Road	Core Zone	FD - C : 2
3	Waste Dump	Core Zone	FD - C : 3
4	Top Soil Dump.	Core Zone	FD - C : 4
5	Work Shop	Core Zone	FD - C : 5
6	Drilling location	Core Zone	FD - C - 6

Note:

- The Monitoring frequency will be followed on Monthly twice in each station except monsoon period.
- The update plate for monitoring station is enclosed as Appendix - 1
- The sampling procedure and parameters analysis will be followed as per National Ambient Air Quality standards and procedure.

Navin Kumar

Ground Water Quality Monitoring:

SL.No	Station Name	Source	Reference No
1	Well at Sinduari	Ground Water	GW - 1
2	Well at Kandaber	-Do-	GW - 2
3	Well at Sirma	-Do	GW - 3
4	Well at Pakri-Barwadih	-Do	GW - 4
5	Well at Ambajit	-Do	GW - 5
6	Well at Horam	-Do	GW - 6
7	Well at Barkagaon	-Do	GW - 7
8	Well at DeworiaKhurd	-Do	GW - 8

Ground Water Level Monitoring:

SL.No	Station Name	Source	Reference No
1	Well at Sinduari	Ground Water	GWL - 1
2	Well at Kandaber	-Do-	GWL - 2
3	Well at Sirma	-Do	GWL - 3
4	Well at Pakri-Barwadih	-Do	GWL - 4
5	Well at Ambajit	-Do	GWL - 5
6	Well at Horam	-Do	GWL - 6
7	Well at Barkagaon	-Do	GWL - 7
8	Well at DeworiaKhurd	-Do	GWL - 8

Note:

- The Monitoring frequency will be followed on quarterly basis, which is winter, summer, monsoon & Post Monsoon.
- The update plate for monitoring station is enclosed as Appendix - 1
- The sampling procedure and parameters analysis will be followed as per IS 15001: 2012.

Navin Kumar

नवीन कुमार / NAVIN KUMAR
ज वहावरक (प्रांरु वरु) / JCM (EXT. WMT)
(रुवुवुवु वरु) / NTPC Limited
वरु वरु वरु वरु / COAL MINING PROJECTS
वरु वरु / Hazarbag

SURFACE WATER QUALITY MONITORING:

SL.No	Station Name	Source	Reference No
1	Lathorwa Nala, near Sirma	U/S of proposed Core Zone	SW-1
2	Pakwa Nala, while entering the lease area	U/S of proposed Core Zone	SW-2
3	Pakwa Nala, while leaving the lease area	D/S of proposed Core Zone	SW-3
4	Lathorwa Nala, before confluence with GhagraNadi	D/S of proposed Core Zone	SW-4
5	Ghagra Nadi near Panduriya, d/s of confluence with HorhoriNadi	D/S of proposed Core Zone	SW-5
6	HaharoNadi, near Kanrtari	Core Zone	SW-6
7	Pond near ChepaKhurd	Core Zone	SW-7

Note:

- The Monitoring frequency will be followed on quarterly basis, which is winter, summer, monsoon & Post Monsoon.
- The update plate for monitoring station is enclosed as Appendix – 1
- The sampling procedure and parameters analysis will be followed as per IS 15001: 2012.

NOISE QUALITY MONITORING:

SL.No	Station Name	Zone	Reference No
1	EXCAVATION AREA	Core Zone	ANL - 1
2	HAUL ROAD	Core Zone	ANL - 2
3	WASTE DUMP	Core Zone	ANL - 3
4	TOP SOIL DUMP.	Core Zone	ANL - 4
5	WORK SHOP	Core Zone	ANL - 5
6	DRILLING LOCATION	Core Zone	ANL - 6
7	OPERATOR CABIN	Core Zone	ANL - 7
8	VILLAGE KANDABER	Buffer Zone	BNL - 8
9	VILLAGE GARIKALAN	Buffer Zone	BNL - 9
10	VILLAGE DHENGA	Buffer Zone	BNL - 10
11	VILLAGE KUSUMBHA	Buffer Zone	BNL - 11
12	BLOCK OFFICE AREA (BARKAGAON)	Buffer Zone	BNL - 12

Navin Kumar

Note:

- The Monitoring frequency will be followed on fortnightly basis in each station for day and night.
- The update plate for monitoring station is enclosed as Appendix – 1

Soil Quality Monitoring:

SL.No	Station Name	Reference No
1	Village Pakri-Barwadih Forest Land	SQ - 1
2	Village Chirudih Forest Land	SQ - 2
3	Village ChepaKhurd Agricultural Land	SQ - 3
4	Horam Agricultural Land	SQ - 4
5	Barkagaon Fallow Land	SQ - 5
6	Kanrtari Sediment From Haharo river	SQ - 6
7	MahugainKhurd Fallow Land	SQ - 7
8	Kandaber Agricultural land	SQ - 8

Note:

- The Monitoring frequency will be followed on quarterly basis, which is winter, summer, monsoon & Post Monsoon.
- The update plate for monitoring station is enclosed as Appendix – 1

Micro Meteorological Station (MMS):

SL.No	Station Name	Reference No
1	Village Langathu (At NTPC Site Office)	MMS

Note:

- The Monitoring will be continuous for Wind Speed, Wind Direction, Temperature, Humidity, rainfall, Solar Radiation, Cloud Cover, etc.
- The update plate for monitoring station is enclosed as Appendix – 1

Navin Kumar

SL.No	Village	Monitoring Stations
1	Itiz , Chirudih	FD-C:1,FD-C:2, FD-C:4, FD-C:5, FD-C:6 ANL-1, ANL-2,ANL-4,ANL-5,ANL-6,ANL-7, SQ-2
2	Sirma	GW-3, GWL-3,
3	Nagari	AAQ-C:2
4	Urub	AAQ-C:1, ANL-3, FD-C:3
5	Pakri Barwadh	AAQ-C:4, GW-4, GWL-4, SQ-1
6	Langathu	AAQ-C:3, MMS
7	Sinduari	GW-1, GWL-1
8	Deworia Khurd	GW-8, GWL-8
9	Chepa Khurd	SW-7, SQ-3
	Barkagaon	GW-7, GWL-7, BNL-12, SQ-5
10	Kandaber	AAQ-B:5 , GW-2, GWL-2, BNL-8, SQ-7
11	Garikalan	AAQ-B:6 , BNL-9
12	Dhenga	AAQ-B:7, BNL-10
13	Kusumbha	AAQ-B:8, BNL-11
14	Ambajit	GW-5, GWL-5
15	Horam	GW-6, GWL-6, SQ-4
16	Ghagra Nadi , Panduriya	SW-5
17	Haharo Nadi, Kanrtari	SW-6, SQ-6
18	Mahugain Khurd	SQ-7
19	Lathorwa Nala	SW-1, SW-4
20	Pakwa Nala	SW-2, SW-3

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 सहायक (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com

FUGITIVE DUST MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF OCTOBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES				
FUGITIVE DUST MONITORING REPORT MONTH OF OCTOBER 2023				
Sl. No.	Date	Station	Result	Norms
1	06.10.2023	Excavation Area	372	600 ug/m ³
	16.10.2023	Excavation Area	359	600 ug/m ³
2	07.10.2023	Haul Road	251	600 ug/m ³
	17.10.2023	Haul Road	248	600 ug/m ³
3	08.10.2023	Waste Dump	224	600 ug/m ³
	18.10.2023	Waste Dump	219	600 ug/m ³
4	09.10.2023	Top Soil Dump	290	600 ug/m ³
	19.10.2023	Top Soil Dump	279	600 ug/m ³
5	10.10.2023	Work Shop	248	600 ug/m ³
	20.10.2023	Work Shop	241	600 ug/m ³
6	11.10.2023	Drilling Location	342	600 ug/m ³
	21.10.2023	Drilling Location	335	600 ug/m ³
7	12.10.2023	PSS Area (Village Nagari) FD:C:8	363	600 ug/m ³
	22.10.2023	PSS Area (Village Nagari) FD:C:8	352	600 ug/m ³

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar
नवा- कुमार / NAVIN KUMAR
एक पर्यावरण (प्रकार) डीआर / DGM (ENVT. MGMT.)
प्रोप्रीएटरी (सिस्टम) NTPC Limited
कोयला खनन परियोजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag

AUTHORISED SIGNATORY
(SHIKHA BHATIYA)



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

FUGITIVE DUST MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES				
FUGITIVE DUST MONITORING REPORT MONTH OF NOVEMBER 2023				
Sl. No.	Date	Station	Result	Norms
1	01.11.2023	Excavation Area	378	600 ug/m ³
	16.11.2023	Excavation Area	364	600 ug/m ³
2	02.11.2023	Haul Road	258	600 ug/m ³
	17.11.2023	Haul Road	251	600 ug/m ³
3	03.11.2023	Waste Dump	229	600 ug/m ³
	18.11.2023	Waste Dump	221	600 ug/m ³
4	04.11.2023	Top Soil Dump	285	600 ug/m ³
	19.11.2023	Top Soil Dump	273	600 ug/m ³
5	05.11.2023	Work Shop	244	600 ug/m ³
	20.11.2023	Work Shop	238	600 ug/m ³
6	06.11.2023	Drilling Location	346	600 ug/m ³
	21.11.2023	Drilling Location	339	600 ug/m ³
7	07.11.2023	PSS Area (Village Nagari) FD:C:8	367	600 ug/m ³
	22.11.2023	PSS Area (Village Nagari) FD:C:8	354	600 ug/m ³

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN) (Technical Manager)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल सहायक (घाँसरा डेप) / JGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag

Global Enviro Laboratories
AUTHORISED SIGNATORY
(SHIKHA BHATIYA)

FUGITIVE DUST MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF DECEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES				
FUGITIVE DUST MONITORING REPORT MONTH OF DECEMBER 2023				
Sl. No.	Date	Station	Result	Norms
1	01.12.2023	Excavation Area	365	600 ug/m ³
	15.12.2023	Excavation Area	352	600 ug/m ³
2	02.12.2023	Haul Road	243	600 ug/m ³
	16.12.2023	Haul Road	242	600 ug/m ³
3	03.12.2023	Waste Dump	228	600 ug/m ³
	17.12.2023	Waste Dump	213	600 ug/m ³
4	04.12.2023	Top Soil Dump	281	600 ug/m ³
	18.12.2023	Top Soil Dump	268	600 ug/m ³
5	05.12.2023	Work Shop	241	600 ug/m ³
	19.12.2023	Work Shop	232	600 ug/m ³
6	06.12.2023	Drilling Location	337	600 ug/m ³
	20.12.2023	Drilling Location	324	600 ug/m ³
7	06.12.2023	PSS Area (Village Nagari) FD:C:8	352	600 ug/m ³
	21.12.2023	PSS Area (Village Nagari) FD:C:8	354	600 ug/m ³

***END OF TEST REPORT ***

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES



CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन.एस.ए.ए. (एन.एस.ए.ए.) / NTPC Limited
कोयला खनन परियोजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag



AUTHORISED SIGNATORY
(SHIKHA BHATIYA)





GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

FUGITIVE DUST MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF FEBRUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGADN, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES				
FUGITIVE DUST MONITORING REPORT MONTH OF FEBRUARY 2024				
Sl. No.	Date	Station	Result	Norms
1	01.02.2024	Excavation Area	368	600 ug/m ³
	15.02.2024	Excavation Area	354	600 ug/m ³
2	02.02.2024	Haul Road	247	600 ug/m ³
	16.02.2024	Haul Road	259	600 ug/m ³
3	03.02.2024	Waste Dump	239	600 ug/m ³
	17.02.2024	Waste Dump	219	600 ug/m ³
4	04.02.2024	Top Soil Dump	279	600 ug/m ³
	18.02.2024	Top Soil Dump	267	600 ug/m ³
5	05.02.2024	Work Shop	256	600 ug/m ³
	19.02.2024	Work Shop	238	600 ug/m ³
6	06.02.2024	Drilling Location	339	600 ug/m ³
	20.02.2024	Drilling Location	326	600 ug/m ³
7	07.02.2024	PSS Area (Village Nagari) FD:C:8	358	600 ug/m ³
	21.02.2024	PSS Area (Village Nagari) FD:C:8	357	600 ug/m ³

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES


CHECKED BY
(INTEKHAB KHAN)(Technical Manager)



नवा- कुमार / NAVIN KUMAR
ज. प्र. वि. (वा. वि. वि.)/JGM (ENV. MGT.)
प्र. वि. (वा. वि. वि.)/NTPC Limited
मो. वि. (वा. वि. वि. वि.)/COAL MINING PROJECTS
हजारीबाग / Hazaribag

AUTHORISED SIGNATORY
(SNIKHA BHATTIA)



FUGITIVE DUST MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF MAR2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINES				
FUGITIVE DUST MONITORING REPORT MONTH OF MAR2024				
Sl. No.	Date	Station	Result	Norms
1	01.03.2024	Excavation Area	387	600 ug/m ³
	16.03.2024	Excavation Area	396	600 ug/m ³
2	02.03.2024	Haul Road	293	600 ug/m ³
	17.03.2024	Haul Road	278	600 ug/m ³
3	03.03.2024	Waste Dump	257	600 ug/m ³
	18.03.2024	Waste Dump	261	600 ug/m ³
4	04.03.2024	Top Soil Dump	306	600 ug/m ³
	19.03.2024	Top Soil Dump	299	600 ug/m ³
5	05.03.2024	Work Shop	275	600 ug/m ³
	20.03.2024	Work Shop	267	600 ug/m ³
6	06.03.2024	Drilling Location	329	600 ug/m ³
	21.03.2024	Drilling Location	318	600 ug/m ³
7	07.03.2024	PSS Area (Village Nagari) FD:C:8	353	600 ug/m ³
	22.03.2024	PSS Area (Village Nagari) FD:C:8	374	600 ug/m ³

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एक महसुस (ऑफिस/डायरी) / OGM (ENVT. MGMT.)
प्रोडिक्ट्स लिमिटेड / NTPC Limited
खाना बनाने की योजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag


AUTHORISED SIGNATORY
(ARVIND KUMAR)



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com

AMBIENT AIR QUALITY MONITORING AND ANALYSIS (HEAVY METALS) SUMMARY REPORT FOR THE MONTH OF OCTOBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT, VILLAGE WISE HEAVY METALS ANALYSIS DATA MONTH OF OCTOBER 2023

S. N O	PARAM ETERS	NORMS	VILLAGE URUB		VILLAGE NAGARI		VILLAGE LANGATHU		PAKRI BARWADIH		VILLAGE KANDABER		VILLAGE GARIKALAN		VILLAGE DHENGA		VILLAGE KUSUMBHA	
			06.10.2023	20.10.2023	06.10.2023	20.10.2023	06.10.2023	20.10.2023	06.10.2023	20.10.2023	06.10.2023	20.10.2023	06.10.2023	20.10.2023	06.10.2023	20.10.2023	06.10.2023	20.10.2023
1	PM 10*	100 ug/m ³	67.3	65.1	72.9	70.7	60.3	58.8	60.9	61.1	56.6	54.8	54.9	55.5	53.1	52.6	50.2	49.5
2	PM 2.5*	60 ug/m ³	36.0	34.85	38.95	37.95	32.65	31.7	32.85	33.25	31	30	29.95	30.45	29.35	28.5	27.2	27.25
3	SO2*	80 ug/m ³	12.5	15.6	16.3	17.4	10.8	11.7	11.2	12.9	10.3	11.8	11.4	10.2	9.3	7.8	10.2	8.8
4	NO2*	80 ug/m ³	22	27.7	29.5	31.1	18.5	19.1	19.8	21.7	17.2	19.8	19.5	16.2	14.9	12.1	16.6	13.4
5	CO**	4.0 mg/m ³	0.52	0.54	0.57	0.53	0.36	0.32	0.38	0.39	0.47	0.49	0.42	0.46	0.48	0.44	0.45	0.41
6	O3**	180 ug/m ³	19.4	18.7	17.1	17.6	18.4	19.9	18.6	18.9	20.9	20.2	20.5	20.4	20.8	20.7	21.2	21.8
7	NH3*	400 ug/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Benzo (A) Pyrene ***	1.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Benzene ***	5.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Arsenic**	6.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Nickel**	20.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Mercury	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Chromium	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Lead*	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

* CPCB Specification for Ambient Air Quality for 24 hrs.

** CPCB Specification for Ambient Air Quality for 1 hr.

*** CPCB Specification for Ambient Air Quality for Annual

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

नवी- कुमर / NAVIN KUMAR
ज. सहायक (वातावरण) / JGM (ENV. MGMT.)
प्रोडिक्ट्स लिमिटेड / NTPC Limited
कोयला खनन परियोजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag





GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
 8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
 MOBILE : +91-9810317145, +91-8826028116
 E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
 MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS (HEAVY METALS) SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
 LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT, VILLAGE WISE HEAVY METALS ANALYSIS DATA MONTH OF NOVEMBER 2023

S. No	PARAMETERS	NORMS	VILLAGE URUB		VILLAGE NAGARI		VILLAGE LANGATHU		PAKRI BARWADIH		VILLAGE KANDABER		VILLAGE GARIKALAN		VILLAGE DHENGA		VILLAGE KUSUMBHA	
			01.11.2023	16.11.2023	01.11.2023	16.11.2023	01.11.2023	16.11.2023	01.11.2023	16.11.2023	01.11.2023	16.11.2023	01.11.2023	16.11.2023	01.11.2023	16.11.2023	01.11.2023	16.11.2023
1	PM 10*	100 ug/m3	66.7	63.1	70.2	68.4	61.4	53.3	61.9	62.6	57.3	55.7	54.1	56.3	55.5	52.9	51.4	50.7
2	PM 2.5*	60 ug/m3	35.7	33.85	37.6	36.8	33.2	28.95	33.35	34	31.35	30.45	29.55	30.85	30.55	28.65	27.8	27.85
3	SO2*	80 ug/m3	12.9	14.6	15.9	16.5	11.1	13.7	11.9	12.2	11.3	11.4	11.9	10.6	10.3	12.8	10.9	11.8
4	NO2*	80 ug/m3	23.1	25.7	28.7	29.3	19.1	23.1	21.2	20.3	19.2	19	20.5	17	16.9	22.1	18	19.4
5	CO**	4.0 mg/m3	0.53	0.53	0.56	0.51	0.46	0.36	0.49	0.42	0.47	0.47	0.42	0.43	0.43	0.48	0.48	0.44
6	O3**	180 ug/m3	19.8	18.6	17.2	17.3	18.7	19.4	18.9	18.4	20.6	20.2	20.1	19.9	20.7	20.9	21.4	21.7
7	NH3*	400 ug/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Benzo (A) Pyrene**	1.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Benzene***	5.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Arsenic**	6.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Nickel**	20.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Mercury	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Chromium	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Lead*	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

* CPCB Specification for Ambient Air Quality for 24 hrs.
 ** CPCB Specification for Ambient Air Quality for 1 hr.
 *** CPCB Specification for Ambient Air Quality for Annual

END OF TEST REPORT

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
 (INTEKHAB KHAN)(Technical Manager)

Navin Kumar

नवीन कुमार / NAVIN KUMAR :
 जल सहायक (प्रारंभिक प्रवर्तक) / JCM (ENVY. MGMT.)
 एनपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजना / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

AUTHORISED SIGNATORY
 (SHIKHA BHATTIYA)



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS (HEAVY METALS) SUMMARY REPORT FOR THE MONTH OF DECEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT, VILLAGE WISE HEAVY METALS ANALYSIS DATA MONTH OF DECEMBER 2023

S. N	PARAMETERS	NORMS	VILLAGE URUB		VILLAGE NAGARI		VILLAGE LANGATHU		PAKRI BARWADIH		VILLAGE KANDABER		VILLAGE GARIKALAN		VILLAGE DHENGA		VILLAGE KUSUMBHA	
			09.12.2023	22.12.2023	09.12.2023	22.12.2023	09.12.2023	22.12.2023	09.12.2023	22.12.2023	09.12.2023	22.12.2023	09.12.2023	22.12.2023	09.12.2023	22.12.2023	09.12.2023	22.12.2023
1	PM ₁₀ *	100 ug/m ³	66.1	65.3	70.4	71.2	61.9	58.9	61.4	61.6	56.2	54.7	53.2	55.7	53.9	52.4	50.8	47.9
2	PM 2.5*	50 ug/m ³	35.4	34.95	37.7	38.2	33.45	31.75	33.1	33.5	30.8	29.95	29.1	30.55	29.75	28.4	27.5	27.45
3	SO ₂ *	80 ug/m ³	12.7	15.8	15.4	17.8	11.7	11.4	11.9	12.4	10.7	11.3	11.8	10.1	9.9	8.5	10.8	9.7
4	NO ₂ *	80 ug/m ³	22.4	27.9	27.7	31.9	20.3	18.5	21.2	20.7	18	18.8	20.3	16	16.1	13.5	17.8	15.2
5	CO**	4.0 mg/m ³	0.53	0.50	0.59	0.51	0.36	0.33	0.39	0.37	0.48	0.41	0.45	0.42	0.49	0.47	0.44	0.47
6	O ₃ **	180 ug/m ³	18.8	18.4	17.4	17.3	18.9	19.1	18.2	18.4	20.7	20.2	20.4	20.1	20.9	20.7	21.4	21.8
7	NH ₃ *	400 ug/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Benzo (A) Pyrene ***	1.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Benzene ***	5.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Arsenic**	5.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Nickel**	20.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Mercury	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Chromium	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Lead*	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

* CPCB Specification for Ambient Air Quality for 24 hrs.
** CPCB Specification for Ambient Air Quality for 1 hr.
*** CPCB Specification for Ambient Air Quality for Annual

***END OF TEST REPORT ***

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED-BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
ज.स.ए.ए.ए. (प्राथमिक प्रबन्ध) / JCM (ENV. MGMT.)
एन.टी.पी.सी. लिमिटेड / NTPC Limited
कोयला खनन परियोजना / COAL MINING PROJECTS
हजारिबाग / Hazaribag

AUTHORISED SIGNATORY
(SHIKHA BHATYA)



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS (HEAVY METALS)

SUMMARY REPORT FOR THE MONTH OF JANUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT, VILLAGE WISE HEAVY METALS ANALYSIS DATA MONTH OF JANUARY 2024

S. No	PARAMETERS	NORMS	VILLAGE URUB		VILLAGE NAGARI		VILLAGE LANGATHU		PAKRI BARWADIH		VILLAGE KANDABER		VILLAGE GARIKALAN		VILLAGE DHENGA		VILLAGE KUSUMBHA	
			10.01.2024	24.01.2024	10.01.2024	24.01.2024	10.01.2024	24.01.2024	10.01.2024	24.01.2024	10.01.2024	24.01.2024	10.01.2024	24.01.2024	10.01.2024	24.01.2024	10.01.2024	24.01.2024
1	PM 10*	100 ug/m ³	66.7	65.1	70.3	71.3	61.2	58.4	61.5	61.3	56.6	54.4	53.3	55.9	53.3	52.2	50.5	49.3
2	PM 2.5*	60 ug/m ³	35.7	34.85	37.65	38.25	33.1	31.5	33.15	33.35	31	29.8	29.15	30.65	29.45	28.3	27.35	27.15
3	SO ₂ *	80 ug/m ³	12.4	15.3	15.8	17.9	11.4	11.3	11.6	12.1	10.8	11.5	11.4	10.3	9.6	8.8	10.6	9.9
4	NO ₂ *	80 ug/m ³	21.8	26.9	28.5	32.1	19.7	18.3	20.6	20.1	18.2	19.2	19.5	16.4	15.5	14.1	17.4	15.6
5	CO**	4.0 mg/m ³	0.55	0.55	0.61	0.53	0.38	0.37	0.41	0.39	0.44	0.46	0.49	0.48	0.43	0.49	0.45	0.42
6	O ₃ **	180 ug/m ³	18.3	18.7	17.7	17.9	18	19.3	18.4	18.8	20.1	20.5	20.3	20.9	20.7	20.4	21.6	21.3
7	NH ₃ *	400 ug/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Benzo (A) Pyrene**	1.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Benzene***	5.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Arsenic**	6.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Nickel**	20.0 mg/m ³	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Mercury	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Chromium	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Lead*	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

* CPCB Specification for Ambient Air Quality for 24 hrs.
** CPCB Specification for Ambient Air Quality for 1 hr.
*** CPCB Specification for Ambient Air Quality for Annual

END OF TEST REPORT

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
का. प्रबन्धक (वातावरण प्रबन्धन) / OGM (ENVY. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag

FOR GLOBAL ENVIRO LABORATORIES

AUTHORISED SIGNATORY
(SHIRHA BHATIYA)

Page No. 1 of 1



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8626028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS (HEAVY METALS) SUMMARY REPORT FOR THE MONTH OF FEBRUARY 2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT, VILLAGE WISE HEAVY METALS ANALYSIS DATA MONTH OF FEBRUARY 2024

S. No	PARAMETERS	NORMS	VILLAGE URUB		VILLAGE NAGARI		VILLAGE LANGATHU		PAKRI BARWADIH		VILLAGE KANDARER		VILLAGE GARIKALAN		VILLAGE DHENGA		VILLAGE KUSUMBHA	
			03.02.2024	22.02.2024	03.02.2024	22.02.2024	03.02.2024	22.02.2024	03.02.2024	22.02.2024	03.02.2024	22.02.2024	03.02.2024	22.02.2024	03.02.2024	22.02.2024	03.02.2024	22.02.2024
1	PM 10*	100 ug/m3	66.6	65.8	70.7	71.3	61.8	58.7	61.7	61.4	56.8	54.4	53.3	55.5	54.6	52.7	50.6	49.6
2	PM 2.5*	60 ug/m3	35.6	35.2	37.85	38.25	33.4	31.65	33.25	33.4	31.1	29.8	29.15	30.45	30.1	28.55	27.4	27.4
3	SO2*	80 ug/m3	12.8	15.5	15.8	17.4	11.4	11.3	11.8	12.8	10.4	11.8	11.9	10.3	10.3	8.6	10.7	9.5
4	NO2*	80 ug/m3	22.6	27.3	28.5	31.1	19.7	18.3	21	21.5	17.4	19.8	20.5	16.4	16.9	13.7	17.6	14.8
5	CO*	4.0 mg/m3	0.58	0.56	0.58	0.58	0.39	0.38	0.37	0.39	0.47	0.49	0.44	0.48	0.56	0.44	0.59	0.43
6	O3**	180 ug/m3	18.7	18.8	17.3	17.4	18.6	19.5	18.9	18.4	20.4	20.3	20.9	20.7	20.5	20.8	21.9	21.4
7	NH3*	400 ug/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Benzo (A) Pyrene***	1.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Benzene***	5.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Arsenic**	6.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Nickel**	20.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Mercury	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Chromium	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Lead*	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

* CPCB Specification for Ambient Air Quality for 24 hrs.
** CPCB Specification for Ambient Air Quality for 1 hr.
*** CPCB Specification for Ambient Air Quality for Annual

END OF TEST REPORT

Page No. 1 of 1

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTEKHAB KHAN)(Technical Manager)

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल सहायक (प्रारंभिक परियोजना) / JCM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हाज़ारीबाग / Hazaribag





GLOBAL ENVIRO Laboratories LLP

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
 6TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
 MOBILE : +91-9810317145, +91-8826028116
 E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
 MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS (HEAVY METALS) SUMMARY REPORT FOR THE MONTH OF MAR2024

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
 LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COAL MINING PROJECT, VILLAGE WISE HEAVY METALS ANALYSIS DATA MONTH OF MAR2024

S. N O	PARAM ETERS	NORMS	VILLAGE URUB		VILLAGE NAGANI		VILLAGE LANGATHU		PAKRI BARWADIH		VILLAGE KANDABER		VILLAGE GARKALAN		VILLAGE DHENGA		VILLAGE KUSUMBHA	
			05.03.2024	18.03.2024	05.03.2024	18.03.2024	05.03.2024	18.03.2024	05.03.2024	18.03.2024	05.03.2024	18.03.2024	05.03.2024	18.03.2024	05.03.2024	18.03.2024	05.03.2024	18.03.2024
1	PM10*	100 ug/m3	67.1	68.4	72.4	73.6	63.9	64.7	60.5	62.8	58.4	57.1	56.9	58.3	53.7	50.4	51.4	51.2
2	PM2.5*	60 ug/m3	36.0	36.8	38.5	38.9	34.6	34.8	32.8	34.3	31.9	31.3	31.3	31.8	29.2	27.7	28.2	29.3
3	SO2*	80 ug/m3	13.8	14.6	15.3	17.4	11.7	13.1	10.4	12.6	9.6	10.5	8.3	11.6	7.5	7.9	7.9	8.5
4	NO2*	80 ug/m3	25.2	26.4	27.7	31.5	20.3	22.8	17.5	21.8	16	17.3	13.2	20.1	11.5	12.3	12.1	13.7
5	CO**	4.0 mg/m3	0.51	0.49	0.68	0.71	0.59	0.57	0.66	0.69	0.54	0.42	0.57	0.55	0.75	0.72	0.63	0.61
6	O3**	180 ug/m3	21.7	21.3	19.6	20.6	23.7	24.4	24.1	25.6	25.9	27.9	26.2	23.1	28.4	29.5	29.3	26.2
7	NH3*	400 ug/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Benzo (A) Pyrene**	1.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Benzene***	5.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Arsenic**	6.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Nickel**	20.0 mg/m3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Mercury	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Chromium	NOT SPECIFIED	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	Lead*	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

* CPCB Specification for Ambient Air Quality for 24 hrs.

** CPCB Specification for Ambient Air Quality for 1 hr.

*** CPCB Specification for Ambient Air Quality for Annual

***END OF TEST REPORT ***

CHECKED BY
 (INTEKHAB KHAN)

FOR GLOBAL ENVIRO LABORATORIES

AUTHORISED SIGNATORY
 (ARVIND KUMAR)

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 जल संचालक (वातावरण) / JGM (ENVY. MGMT.)
 प्रोडिक्ट्स (इन्फ्रा) NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

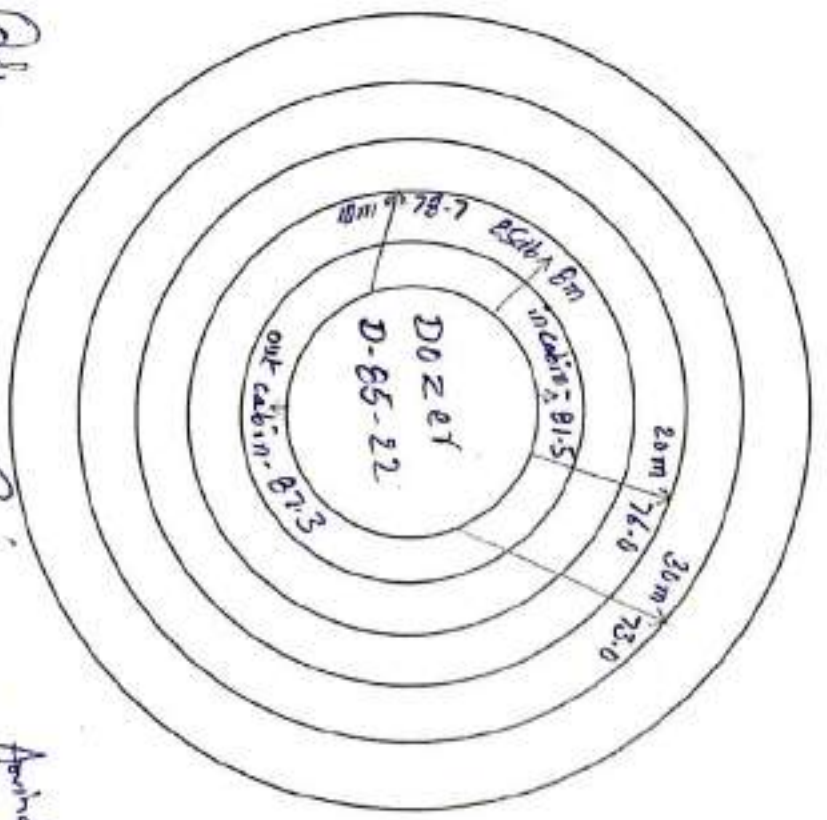
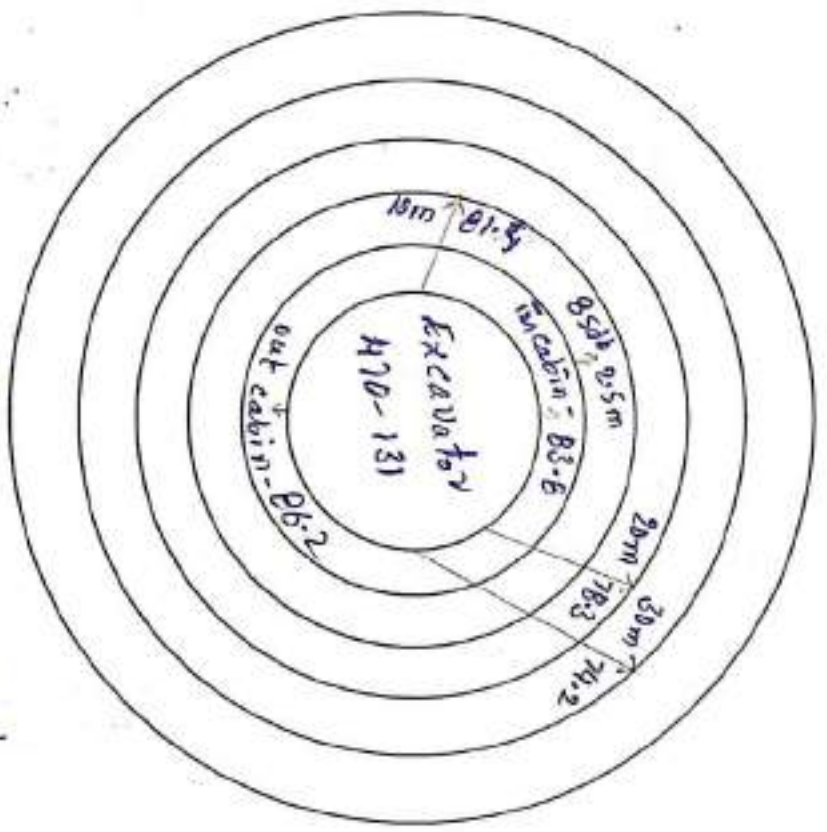
Page No. 1 of 1



NOISE SURVEY RESULT FOR THE MONTH OF - OCTOBER 2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	HEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	05.10.23	Exc. 470(131)	North East	83.8	86.2	-	2.5	81.4	78.3	74.2	
2	05.10.23	Digger D-85 (22)	Fault Zone	81.5	87.3	-	8	78.7	76.0	73.0	



S. M. Mandal
OVERMAN
TSMPL

A. K. S. Singh
OVERMAN
NTPC

S. K. S. Singh
SAFETY OFFICER
TSMPL

S. K. S. Singh
MINING HEAD
TSMPL

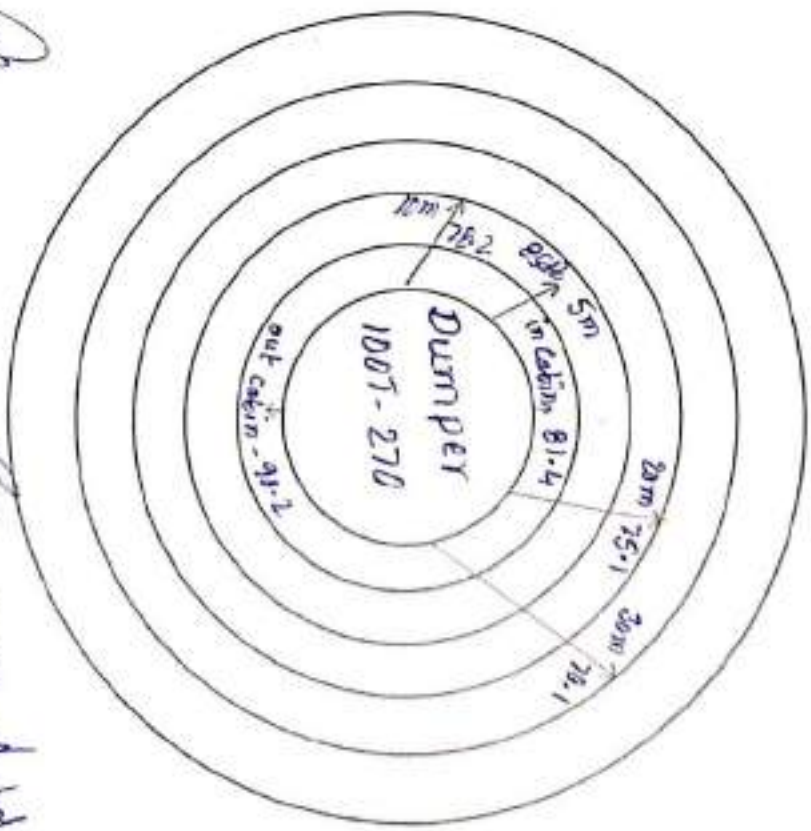
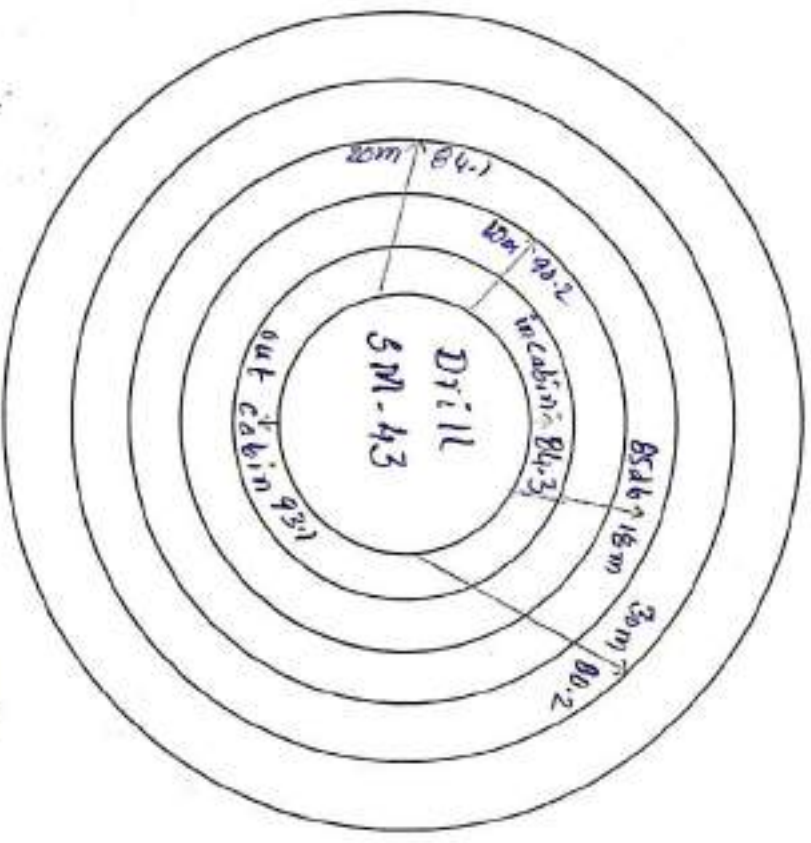
S. K. S. Singh
SAFETY OFFICER
NTPC

Avinash Kumar Singh
MINES MAN.
NTPC
18.10.2023

NOISE SURVEY RESULT FOR THE MONTH OF OCTOBER 2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	08.10.23	Drill SM-43	Fault Zone	84.3	93.1	-	18	90.2	84.1	80.2	Ear Plug provided
2	09.10.2023	Dumper 100T-270	Parking Yard	81.4	90.2	-	5	78.2	75.1	70.1	



OVERMAN TSMPL

OVERMAN NTPC

SAFETY OFFICER TSMPL

MINING HEAD TSMPL

SAFETY OFFICER NTPC

MINES MAN. NTPC

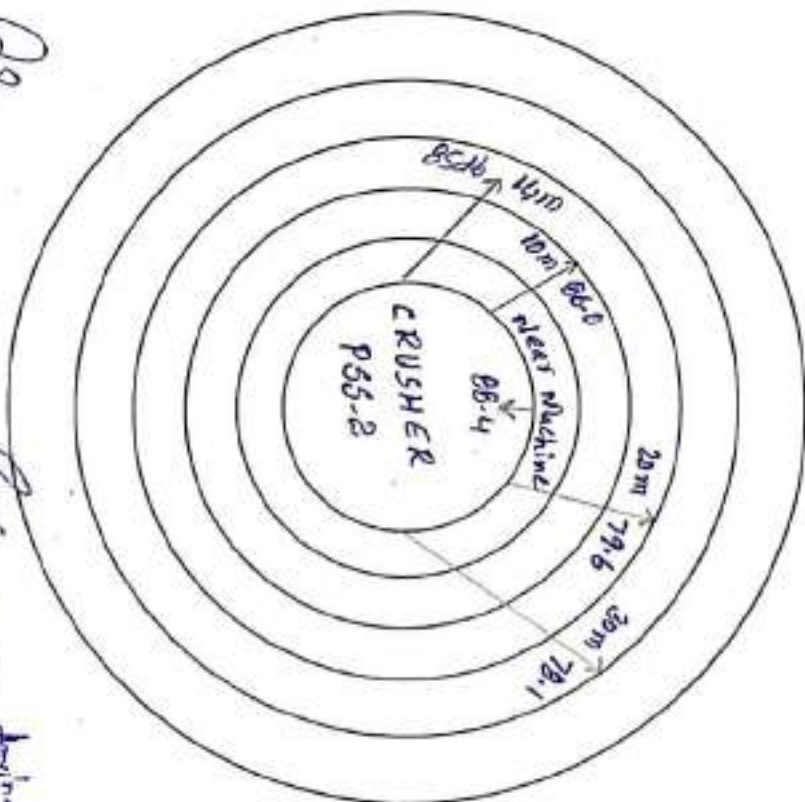
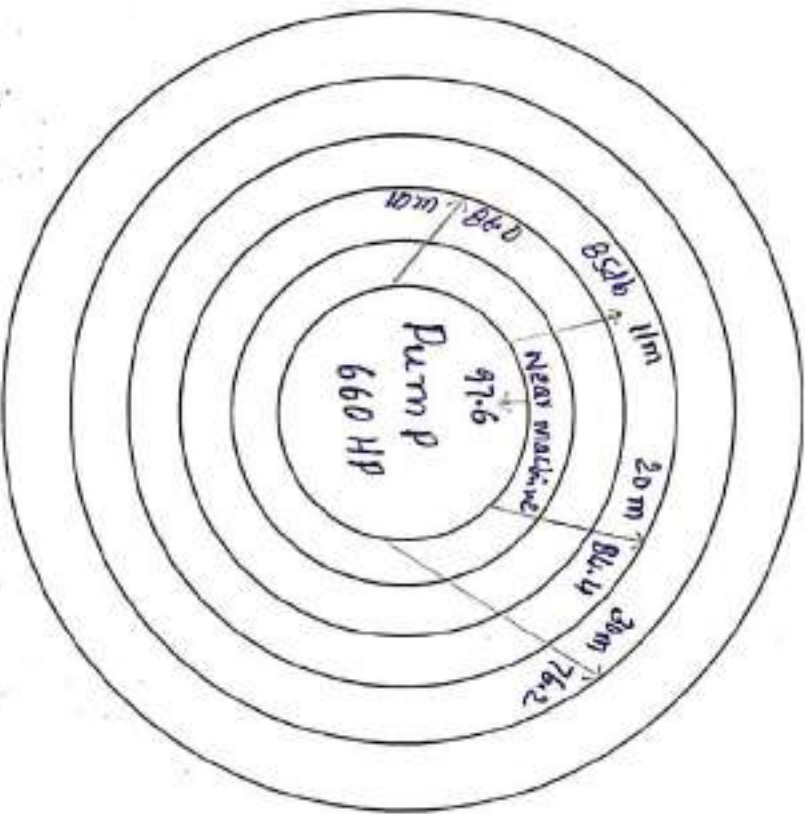
08/10/2023

Arvind Kumar Sr. 12.12.2023

NOISE SURVEY RESULT FOR THE MONTH OF - OCTOBER 2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	06.10.23	660HP Pump	North West	-	-	97.6	11	86.0	84.4	76.2	Earplugs provided
2	06.10.23	PSS (02)	Crusher Area	-	-	88.4	14	86.0	79.6	78.1	



J. Nishankar
OVERMAN
TSMPL

A. K. S. Reddy
OVERMAN
NTPC

S. K. S.
SAFETY OFFICER
TSMPL

P. S. S.
MINING HEAD
TSMPL

S. K. S.
SAFETY OFFICER
NTPC

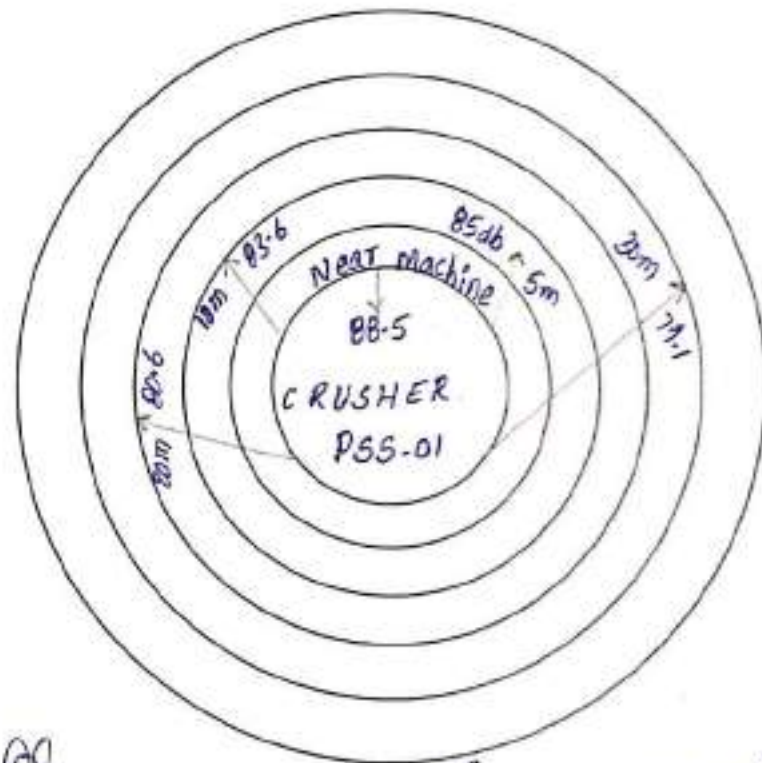
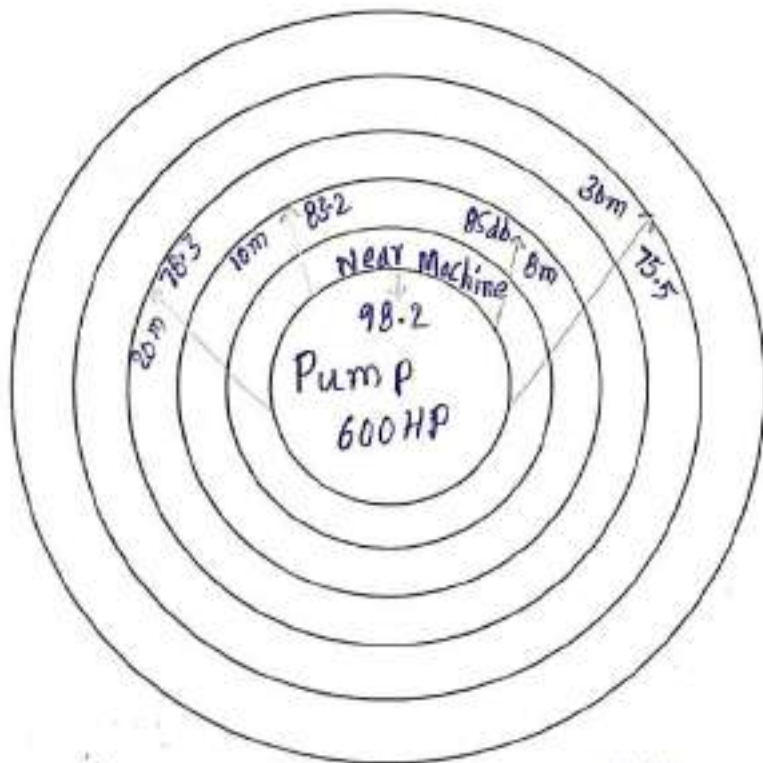
M. S. S.
MINES MAN
NTPC

Handwritten signature
18.10.2023

NOISE SURVEY RESULT FOR THE MONTH OF - NOVEMBER-2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	03.11.23	600 HP Pump Electrical	North West	-	-	98.2	08	83.2	78.3	75.5	
2	05.11.23	PSS (01)	Crusher Area	-	-	88.5	05	83.6	80.6	79.1	



S. Mahanta
OVERMAN
TSMPL

Arb
OVERMAN
NTPC

[Signature]
SAFETY OFFICER
TSMPL

[Signature]
MINING HEAD
TSMPL

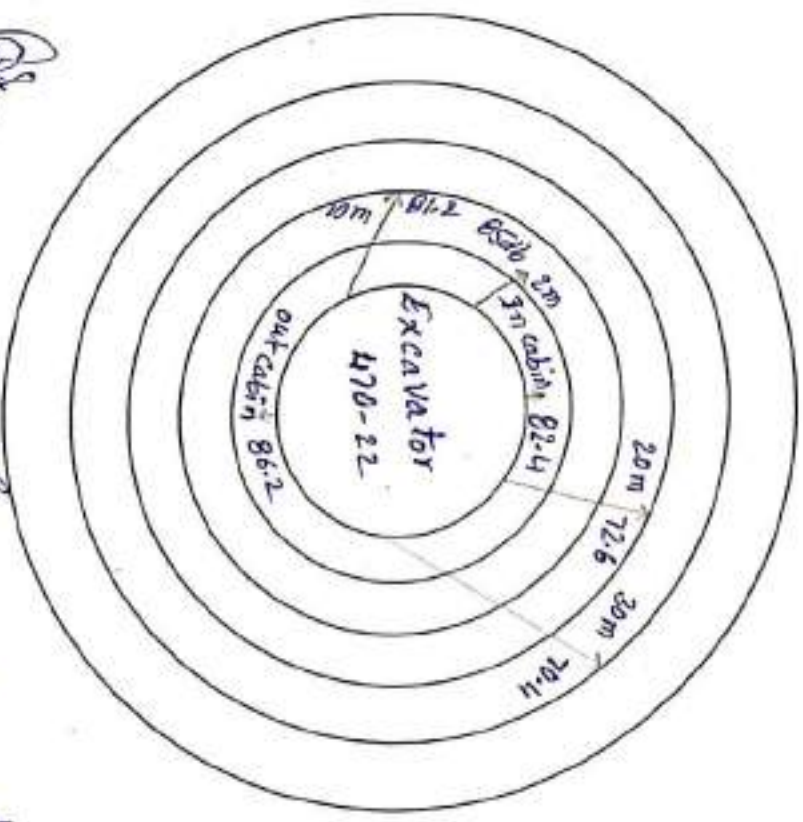
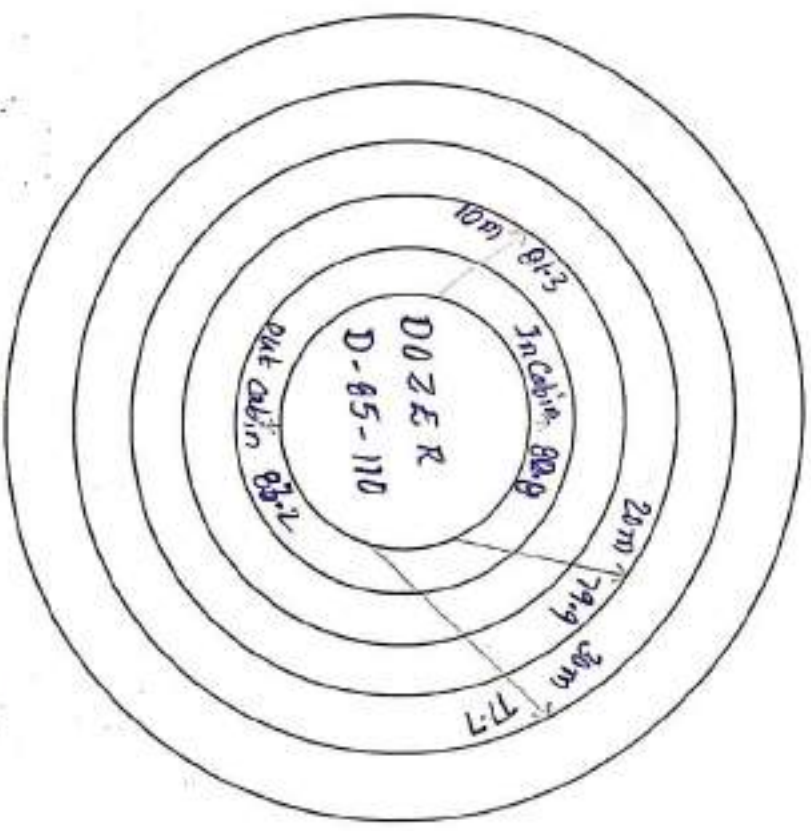
[Signature]
SAFETY OFFICER
NTPC

[Signature]
MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF NOVEMBER-2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	05-11-23	DOZER D-85 (110)	Inpit Dump 365 R.L	80.8	83.2	-	-	81.3	79.9	77.7	
2	05-11-23	Excavator 470-(22)	North West	82.4	86.2	-	2	81.2	72.6	70.4	



S. Mahanta
OVERMAN
TSMPL

A. B. S. S. S.
OVERMAN
NTPC

S. S. S.
SAFETY OFFICER
TSMPL

S. S. S.
MINING HEAD
TSMPL

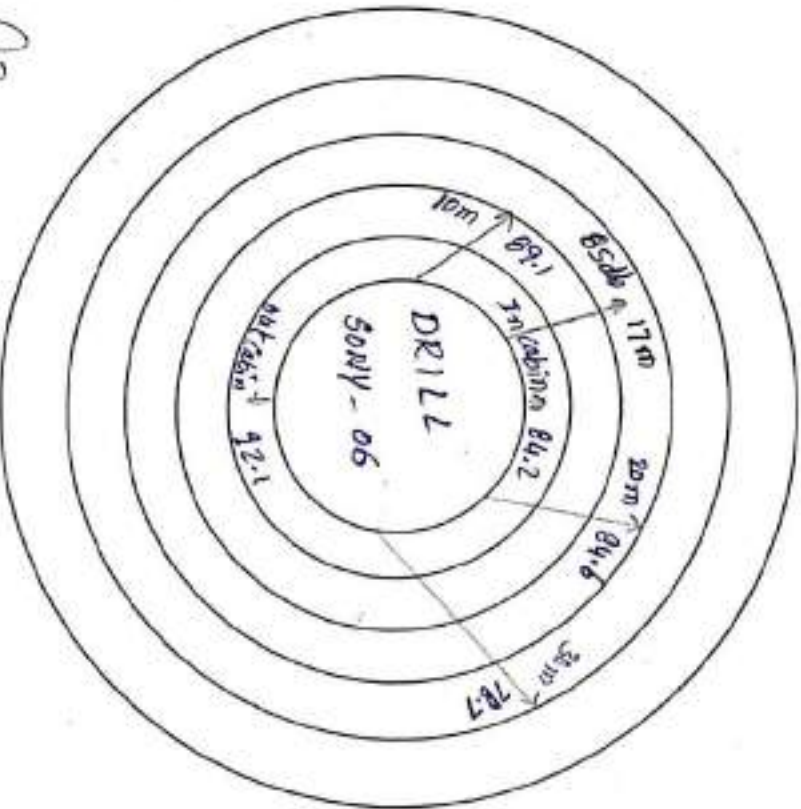
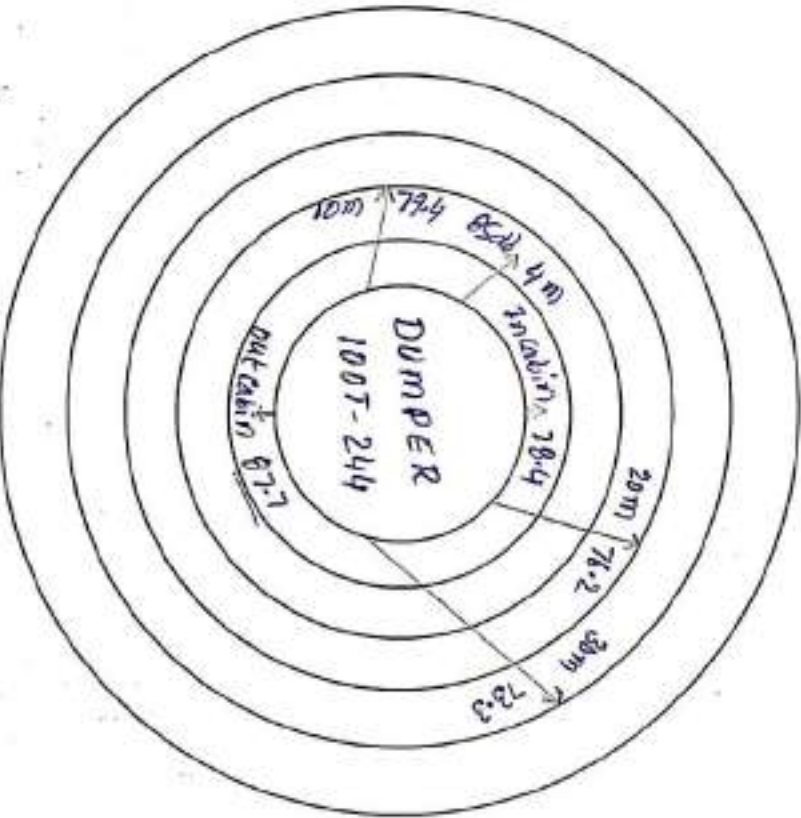
S. S. S.
SAFETY OFFICER
NTPC

A. B. S. S. S.
MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF NOVEMBER-2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	06.11.23	Dumper 100T-244	Dump 'e' 15 m	78.4	87.7	-	4	79.4	76.2	73.3	
2	06.11.23	Sony Drill-(06)	South west	84.2	92.1	-	17	89.1	84.6	78.7	



S. Singh
OVERMAN
TSMPL

A. Singh
OVERMAN
NTPC

S. Singh
SAFETY OFFICER
TSMPL

S. Singh
MINING HEAD
TSMPL

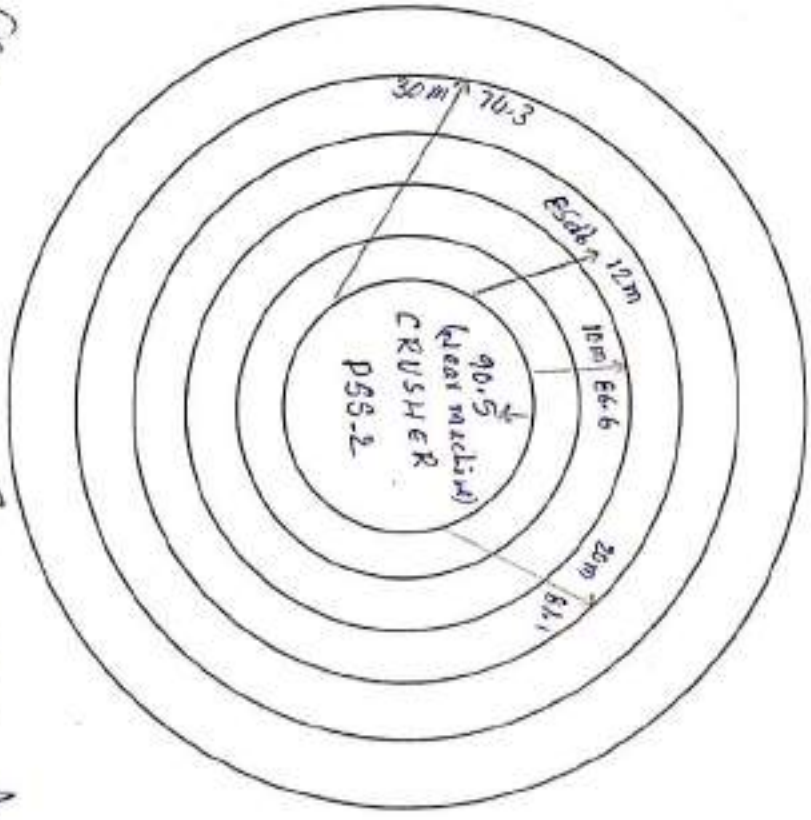
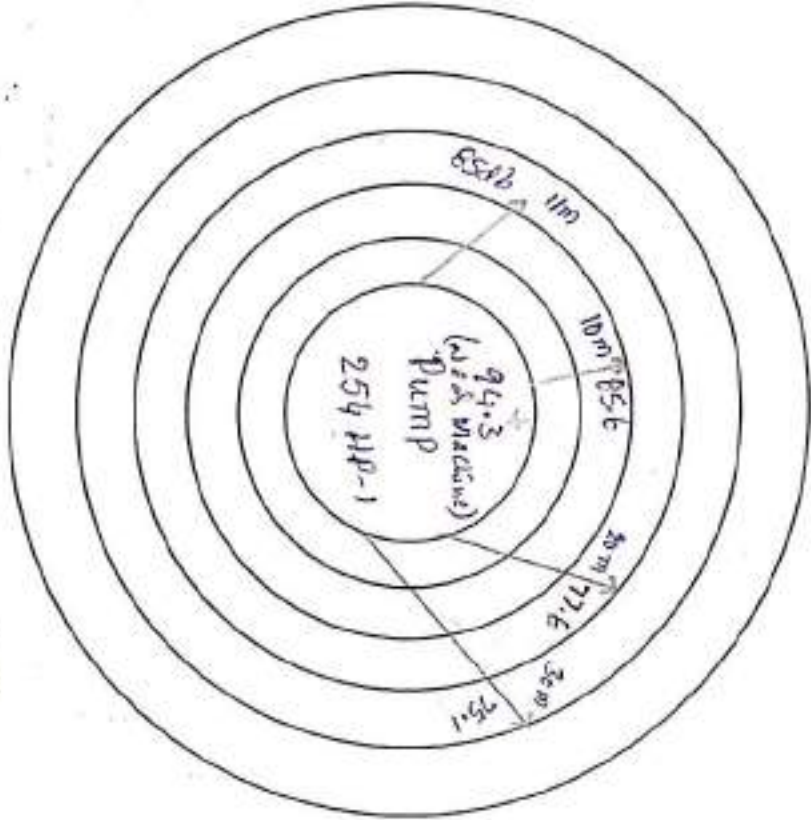
S. Singh
SAFETY OFFICER
NTPC

A. Singh
MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF DECEMBER - 2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	02-12-23	254 HP-1 Pump	Utub Pond	-	-	94.3	11	85.6	77.6	75.1	
2	02-12-23	PSS-2	Crusher	-	-	90.5	12	86.6	81.1	74.3	



S. Mahanta
OVERMAN
TSMPL

APL
OVERMAN
NTPC
2-11-23

Safety Officer
TSMPL

MINING HEAD
TSMPL

Safety Officer
NTPC

MINES MAN.
NTPC

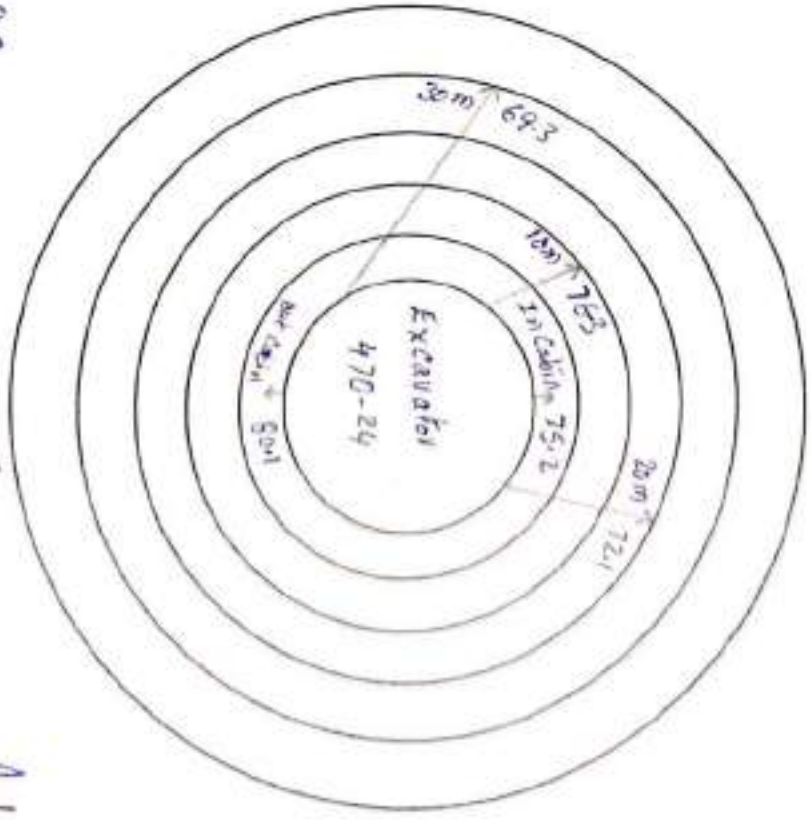
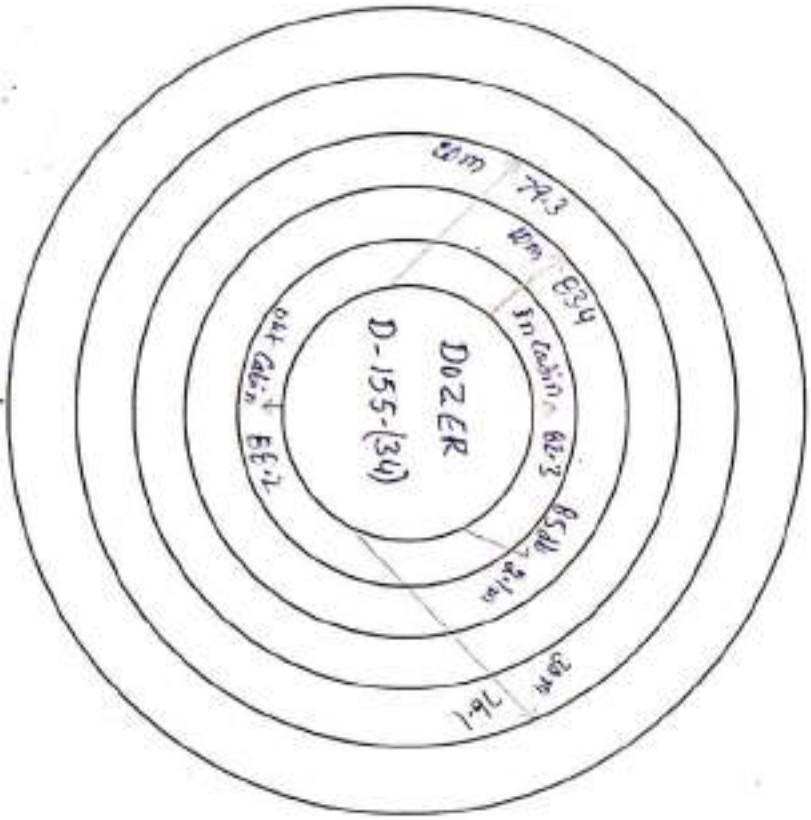
21/12/2023

20/12/23

NOISE SURVEY RESULT FOR THE MONTH OF DECEMBER-2023

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	03-12-23	DOZER-D-155(34)	SOUTH WEST	82.3	88.2	-	2.1	88.4	79.3	76.1	
2	03-12-23	Excavator-470(49)	NORTH WEST	75.2	80.1	-	-	76.3	72.1	69.3	



OVERMAN
TSMPL

OVERMAN
NTPC

SAFETY OFFICER
TSMPL

MINING HEAD
TSMPL

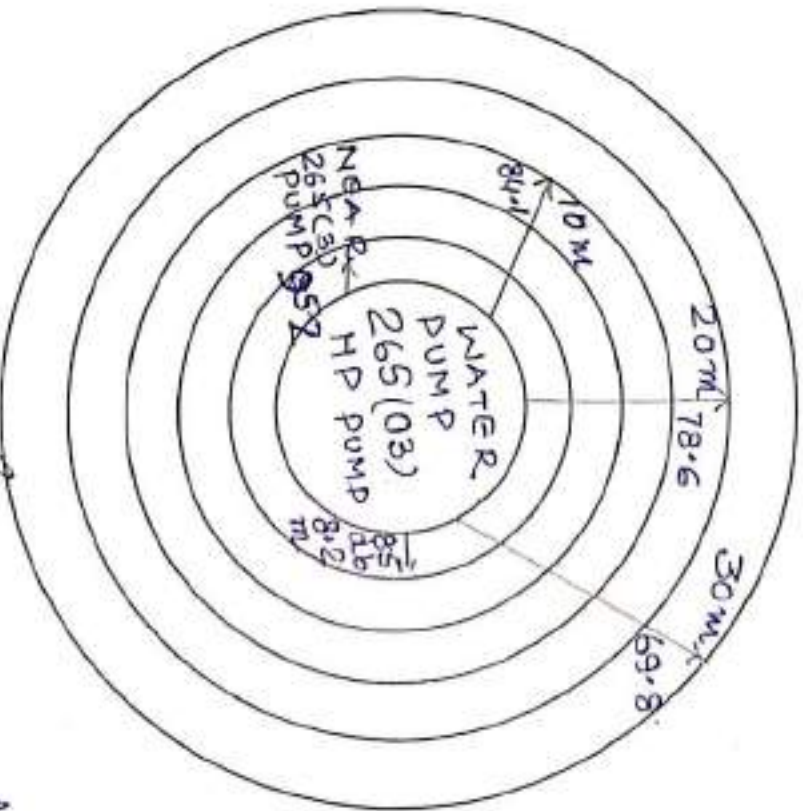
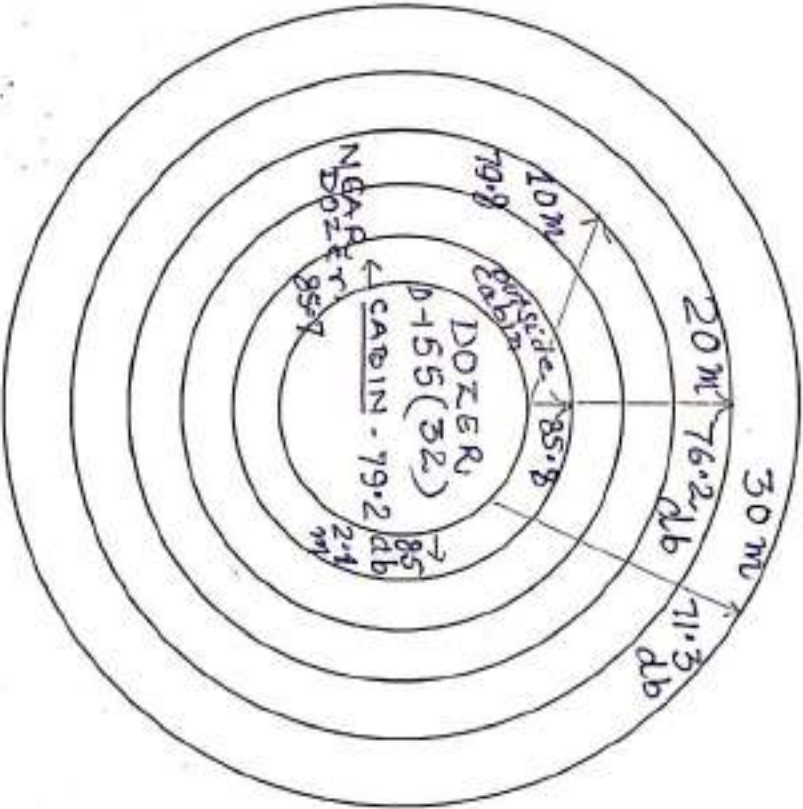
SAFETY OFFICER
NTPC

MINES MAN
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF January - 2024

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SLNO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	13/01/24	DOZER-155 (32)	wp-I Bottom	79.2	85.8	85.7	2.1m	79.8 db	76.2 db	71.3 db	
2	13/01/24	265 HP-3	South Bottom	-	-	95.2	8.2m	84.1	78.6 db	69.8 db	



[Signature]
OVERMAN
TSMPL

[Signature]
OVERMAN
NTPC
13/01/24

[Signature]
SAFETY OFFICER
TSMPL

[Signature]
MINING HEAD
TSMPL

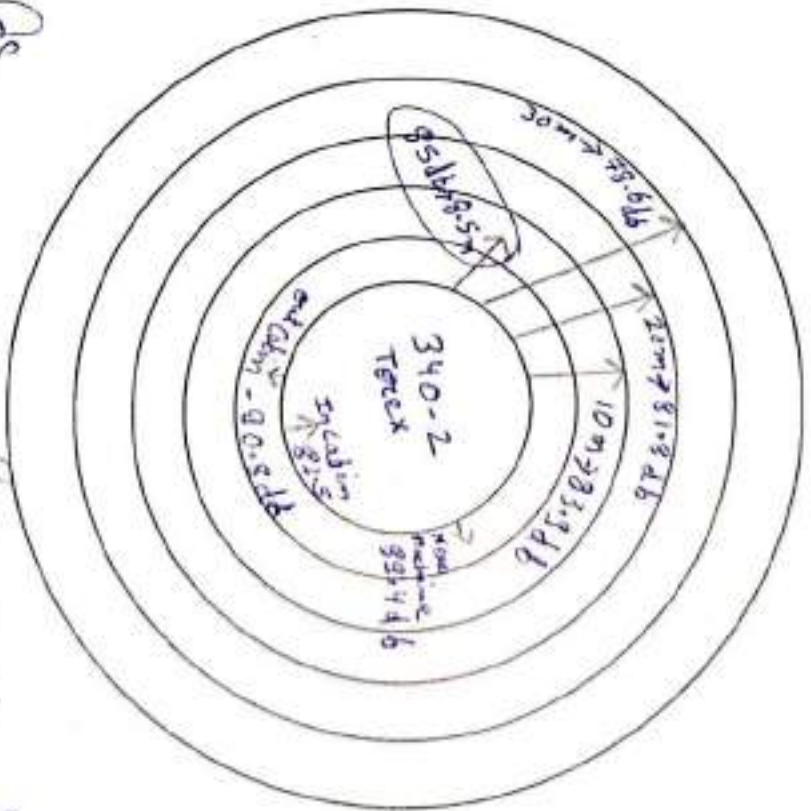
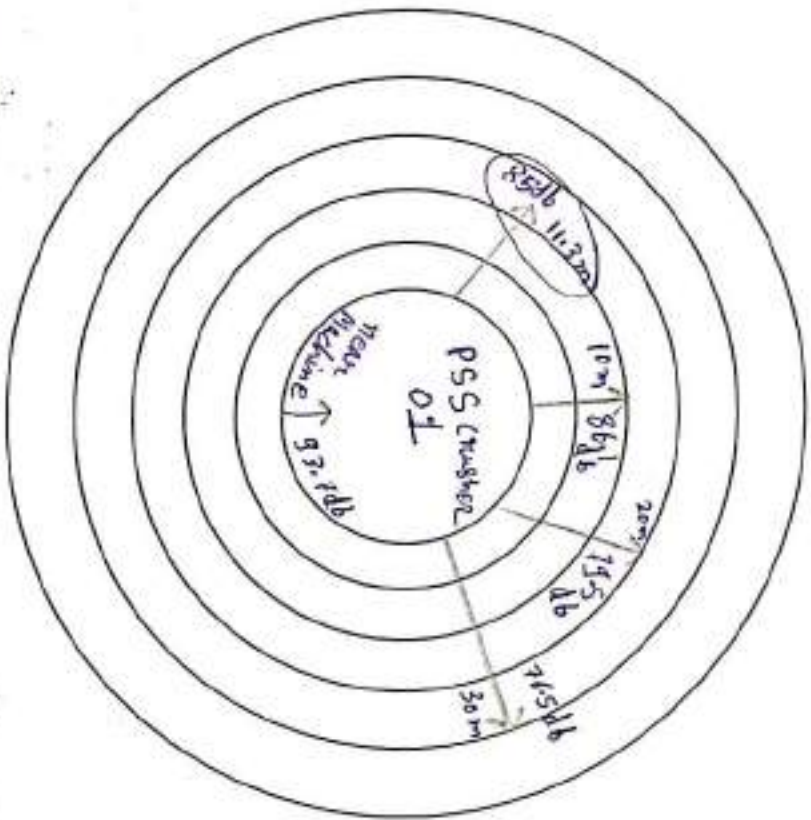
[Signature]
SAFETY OFFICER
NTPC
13/01/2024

[Signature]
MINES MAN
NTPC
13/01/24

NOISE SURVEY RESULT FOR THE MONTH OF January - 2024

NAME OF MINES : PAKRI BARWADIH COAL MINES PROJECT

SL.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	14/01/24	PSS-02	Crusher	-	-	93.7	11.3	86.1	79.5	76.5	
2	14/01/24	340-2 Terex machine	South Cuff	82.5	90.8	89.4	8.5	83.9	81.8	78.6	



Pril Kumar
OVERMAN
TSMPL

Pril Kumar
OVERMAN
TSMPL 14/01

Pril Kumar
SAFETY OFFICER
TSMPL

Pril Kumar
MINING HEAD
TSMPL

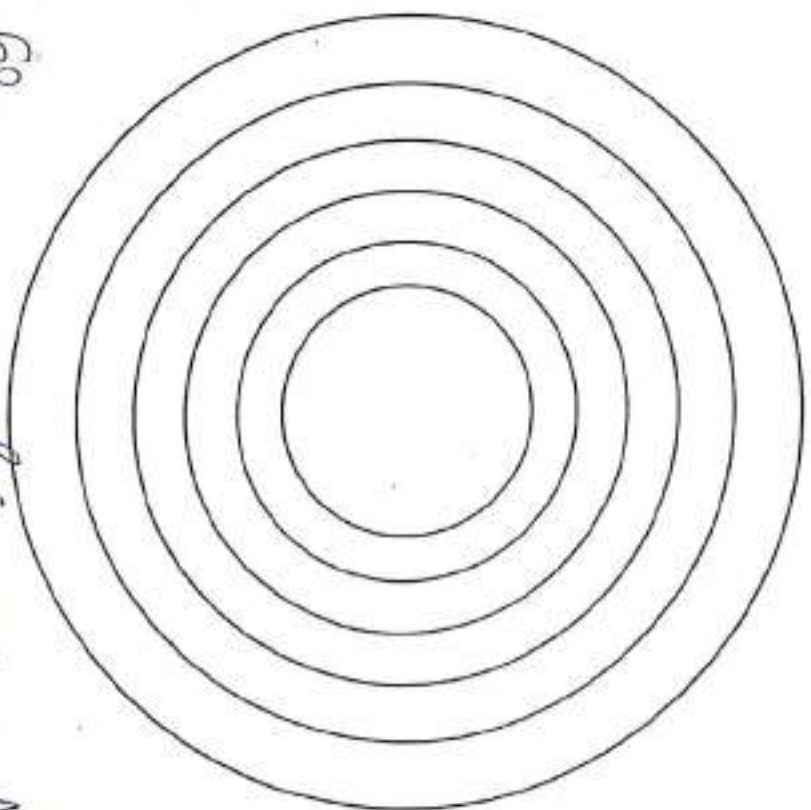
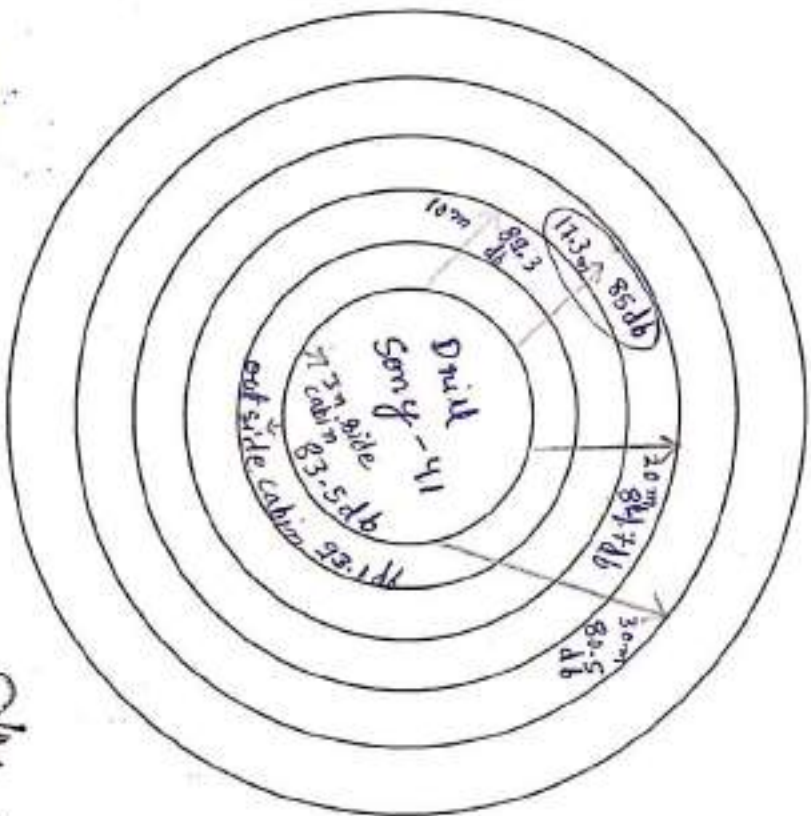
Pril Kumar
SAFETY OFFICER
NTPC 25/1/2024

Pril Kumar
MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF Jan 24

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

SER. NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 dB (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	19/01/24	Sony Drill - 411	South east 3 rd side	83.5	93.1	-	17.3	89.3	84.7	80.5	
2											



OVERMAN TSMPL *P. K. Kumar*

OVERMAN NTPC *A. K. S. 19/10*

SAFETY OFFICER TSMPL *[Signature]*

MINING HEAD TSMPL *[Signature]*

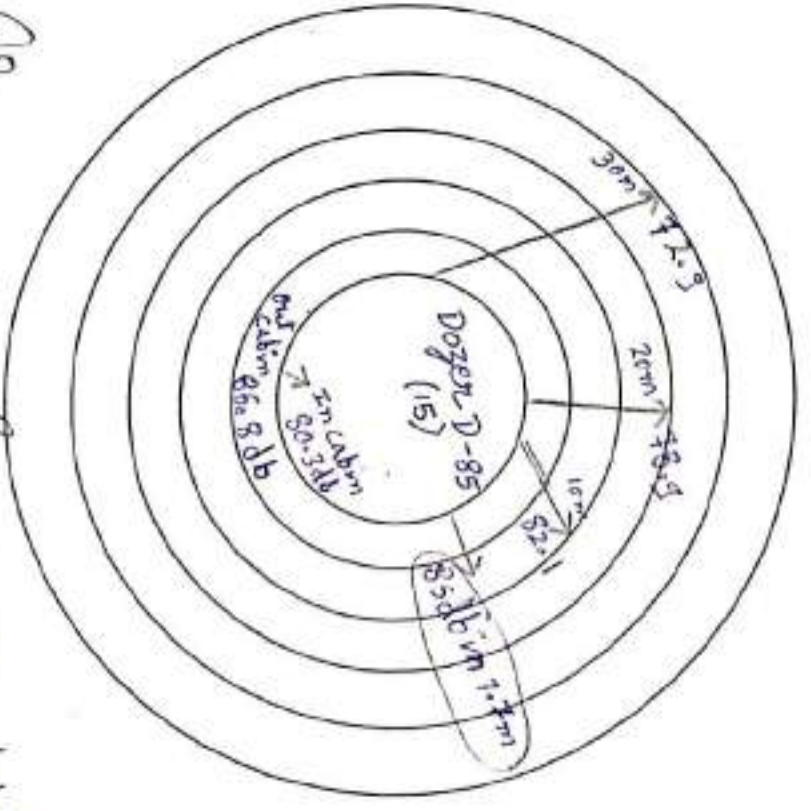
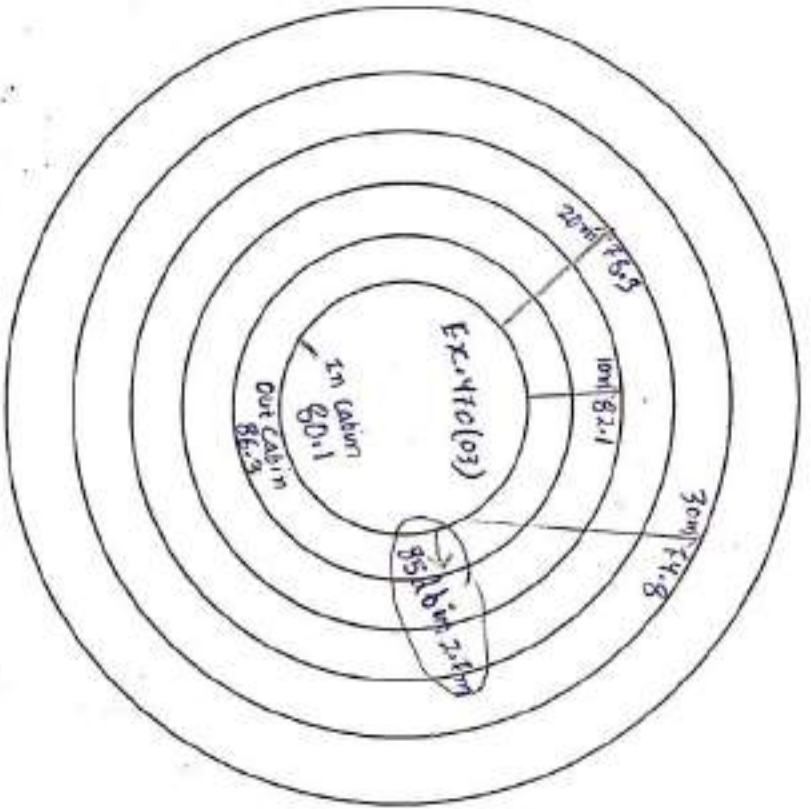
SAFETY OFFICER NTPC *[Signature]* 25/1/2024

MINES MAN. NTPC *[Signature]*

NOISE SURVEY RESULT FOR THE MONTH OF Feb - 24

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

LNO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	19/02/24	Exc. 470 (CE-03)	W.P-3	80.1	86.3	-	2.7	82.1	78.9	74.8	
2	19/02/24	Dogel D-85 (15)	W.P-3	80.3	86.8	-	7.7	78.2	75.6	72.9	



OVERMAN TSMPL

OVERMAN TSMPL

SAFETY OFFICER TSMPL

MINING HEAD TSMPL

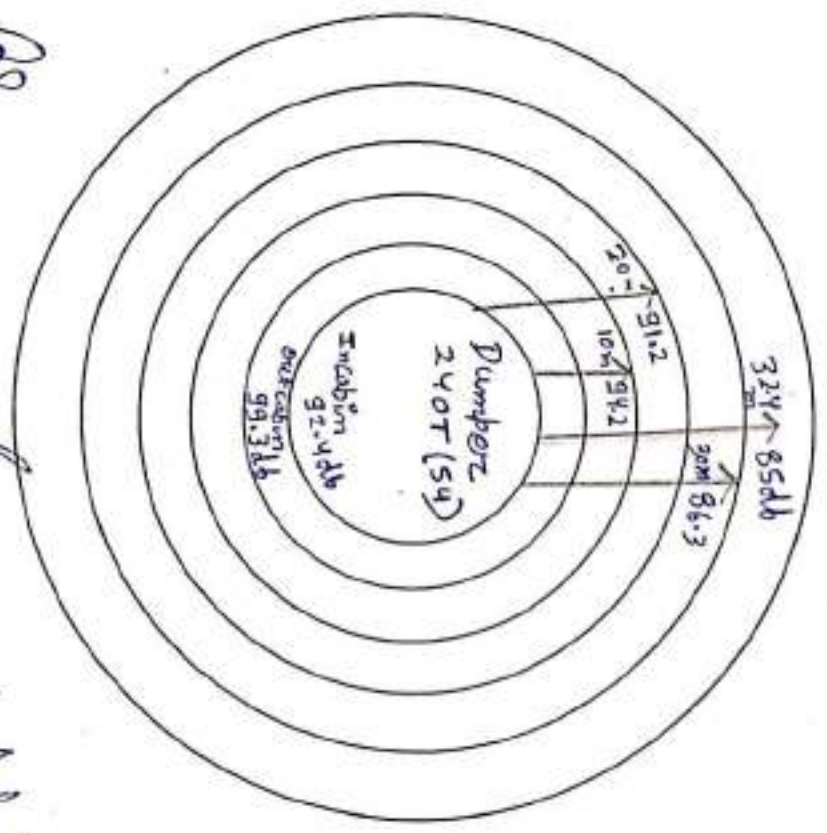
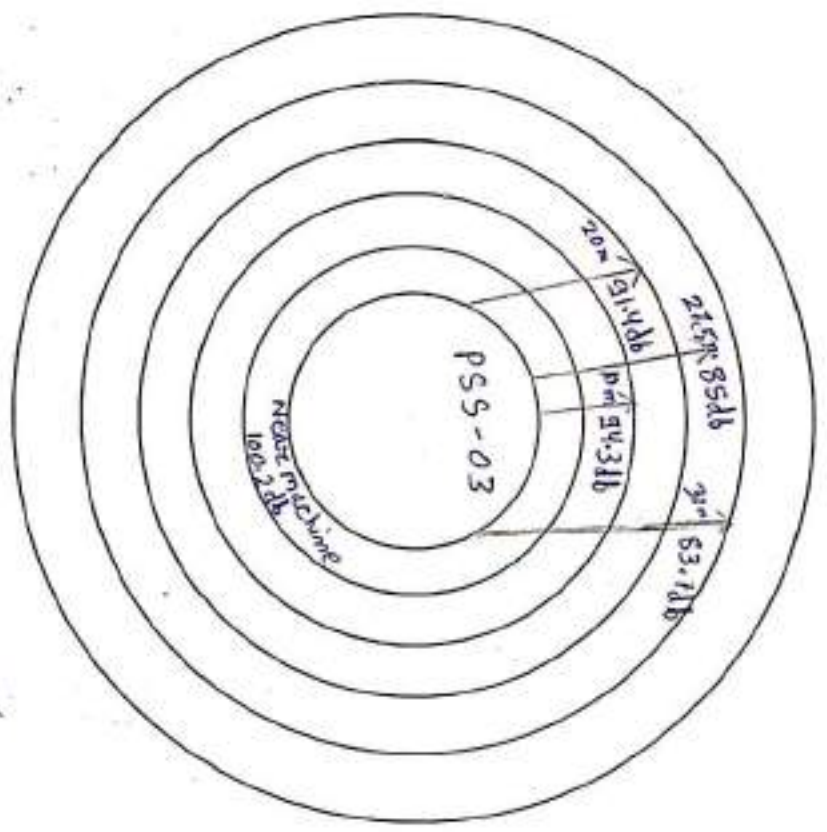
SAFETY OFFICER NTPC

MINES MAN. NTPC

NOISE SURVEY RESULT FOR THE MONTH OF Feb-24

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

L.NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	22/02/24	PSS-03	Crusher	-	-	100.2db	27.5m	94.3db	91.4db	83.7db	
2	23/02/24	240T (54) Dumper	Posing yard 15m	92.4db	99.3db	98.7db	32.4m	94.2db	91.2db	86.3db	In-Side Cabin 84.1db Action rectification level. 70/4



Overman
TSMPL

Overman
NTPC

Safety Officer
TSMPL

Mining Head
TSMPL

Safety Officer
NTPC

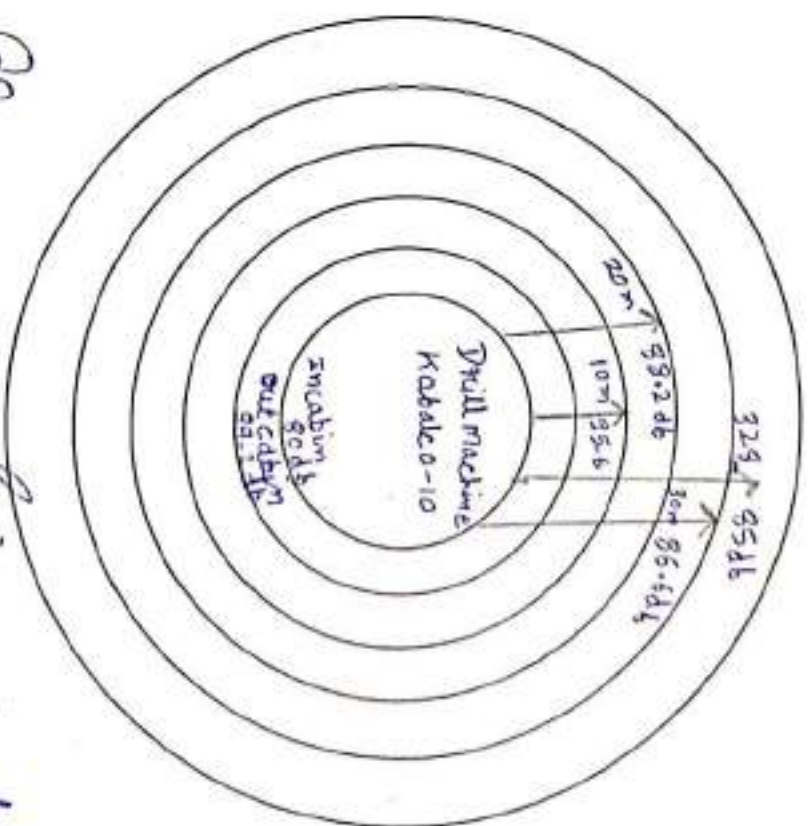
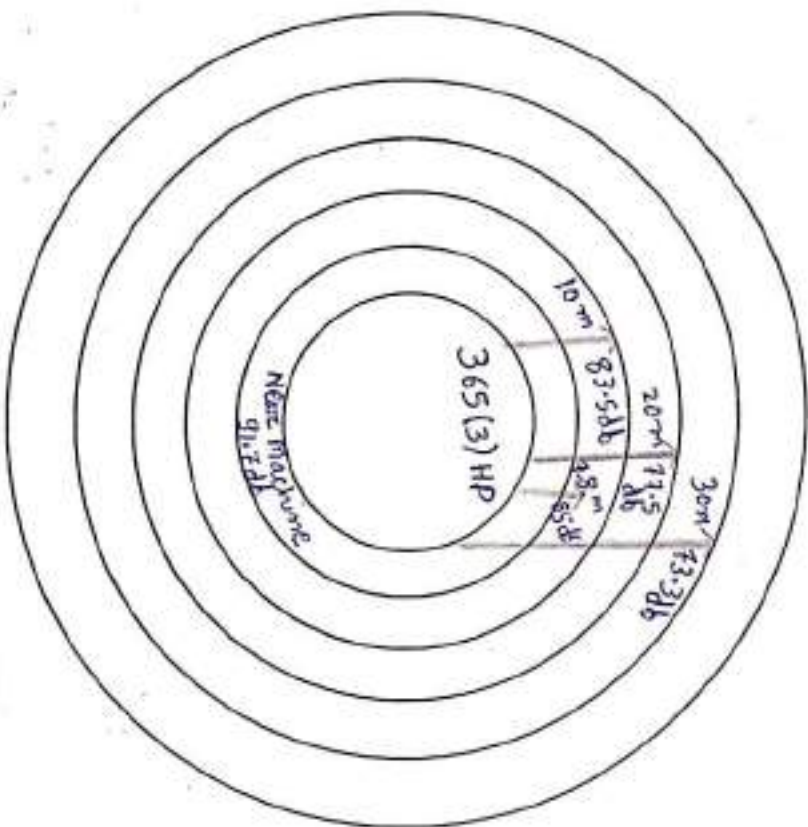
Mines Man
NTPC

26/2/2024
Paul D Pr SA
08.02.24

NOISE SURVEY RESULT FOR THE MONTH OF - Feb - 24

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	23/02/24	365(3) HP	West Bedbm 360 RL	-	-	91-7db	7.8 m	83.5db	77.5db	73.3db	
2	23/02/24	Drill Machine Kobalco-10	east 4th Bench 397 RL	80.0db	99.2db	-	32.8 m	95.6db	88.2db	86.6db	



Overman TSMPL
Anil Kumar

Overman NTPC
Anil Kumar

Safety Officer TSMPL
Anil Kumar

Mining Head TSMPL
Anil Kumar

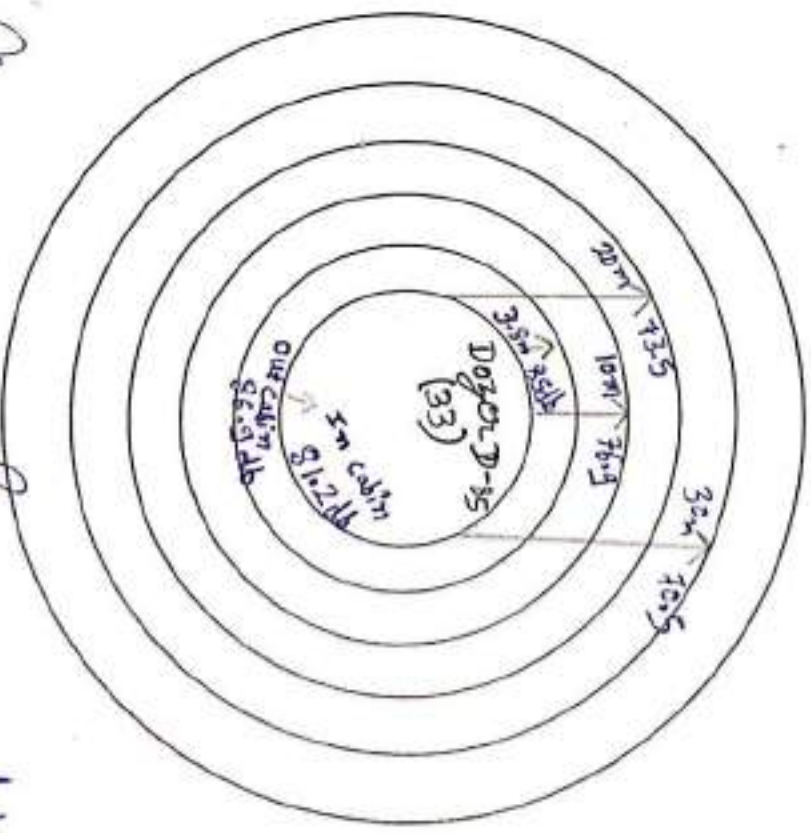
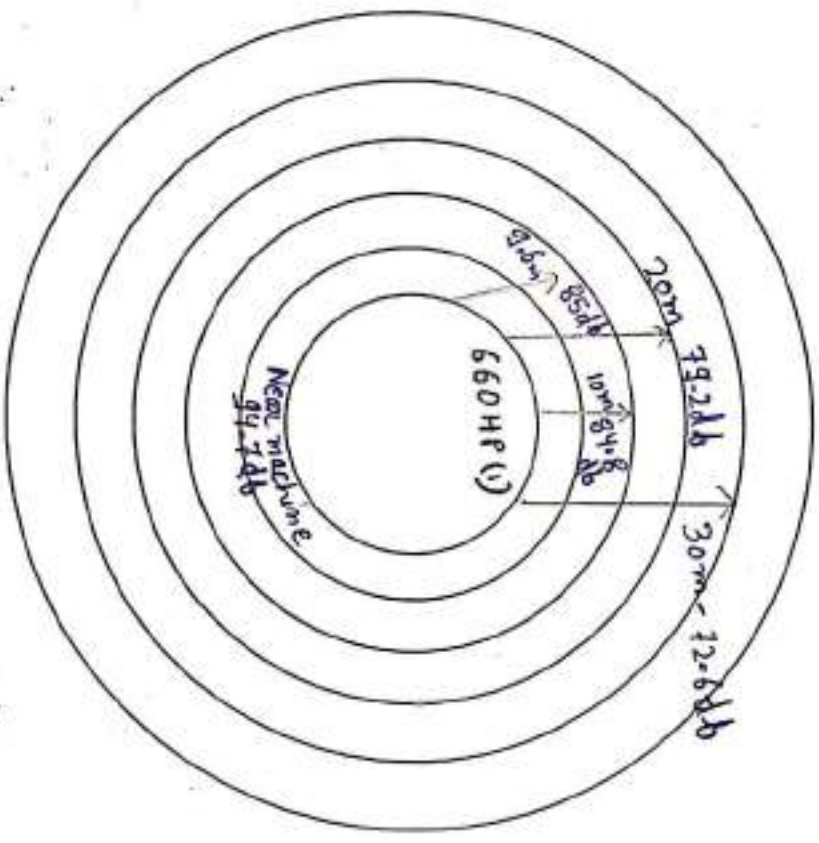
Safety Officer NTPC
Anil Kumar

Mines Man. NTPC
Anil Kumar

NOISE SURVEY RESULT FOR THE MONTH OF - March 2024

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	10/03/24	660 HP (01)	S2 PL.	—	—	94.7 db	9.6 m	84.8 db	79.2 db	72.6 db	
2	11/03/24	D85 (33)	Tritic Dump	81.2	86.9	—	3.8 m	76.9	73.5	70.5	



OVERMAN
TSMPL

OVERMAN
NTPC

SAFETY OFFICER
TSMPL

MINING HEAD
TSMPL

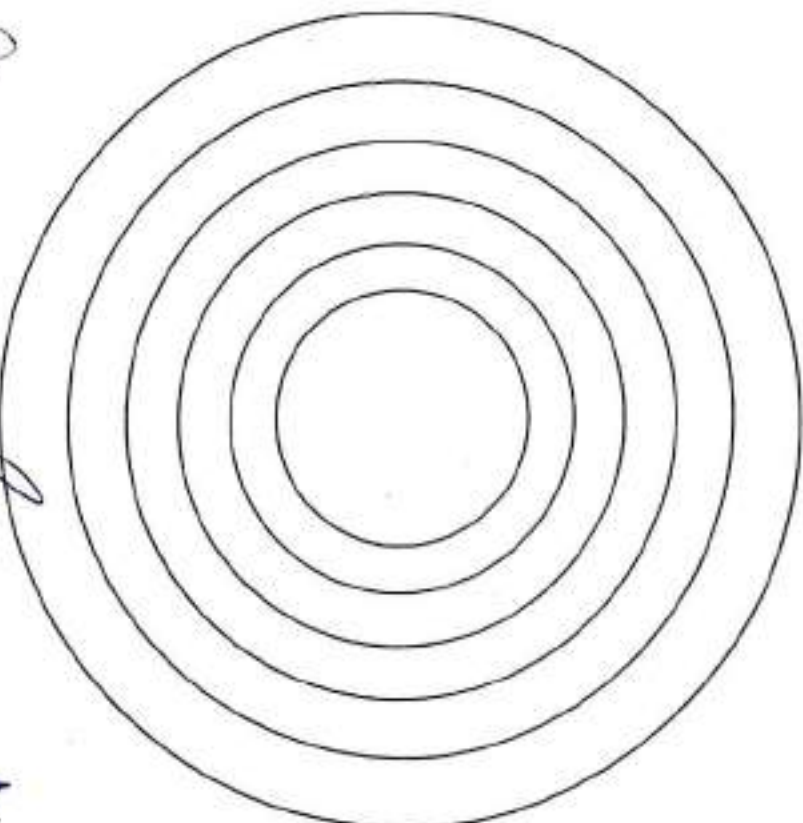
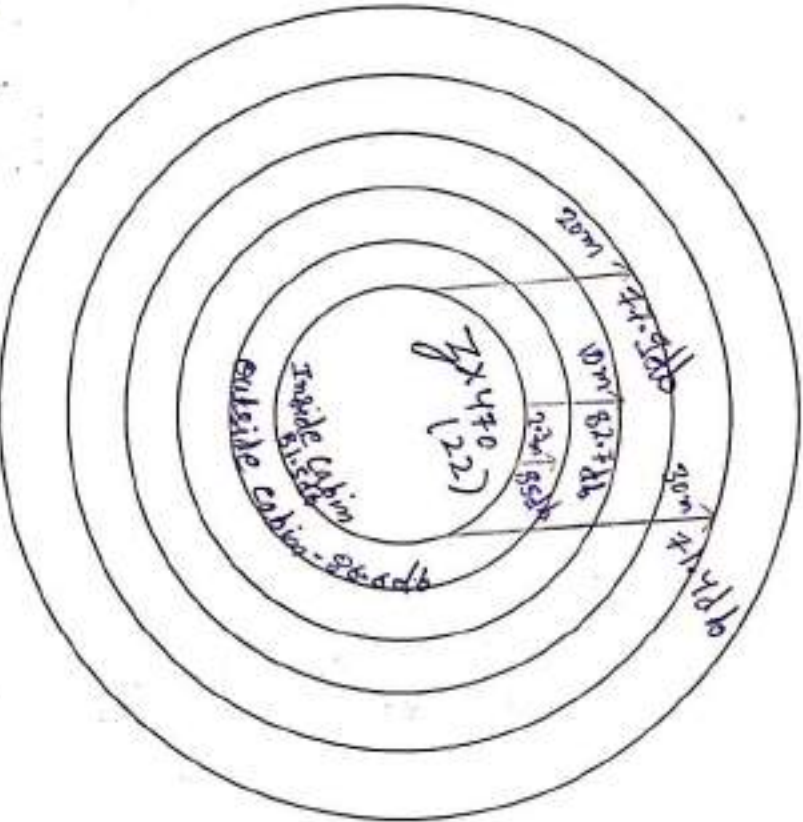
SAFETY OFFICER
NTPC

MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF - March 2024

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
1	12/03/24	3X 470-22	WP-1	81.5	86.6	-	2.3	82.7	77.9	71.4	
2											



[Signature]
OVERMAN
TSMPL

[Signature]
OVERMAN
NTPC

[Signature]
SAFETY OFFICER
TSMPL

[Signature]
MINING HEAD
TSMPL

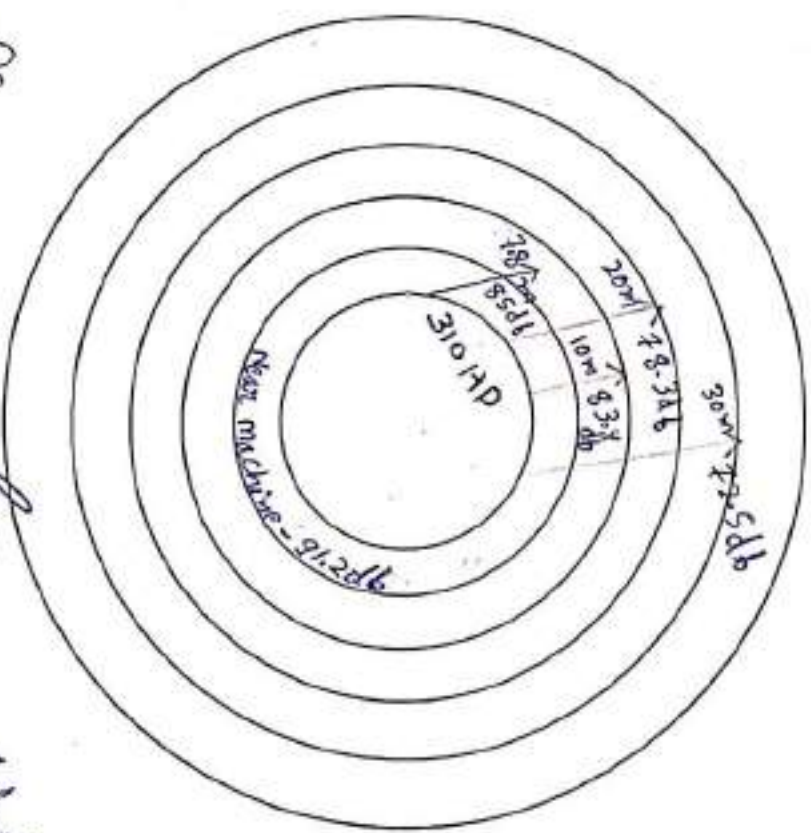
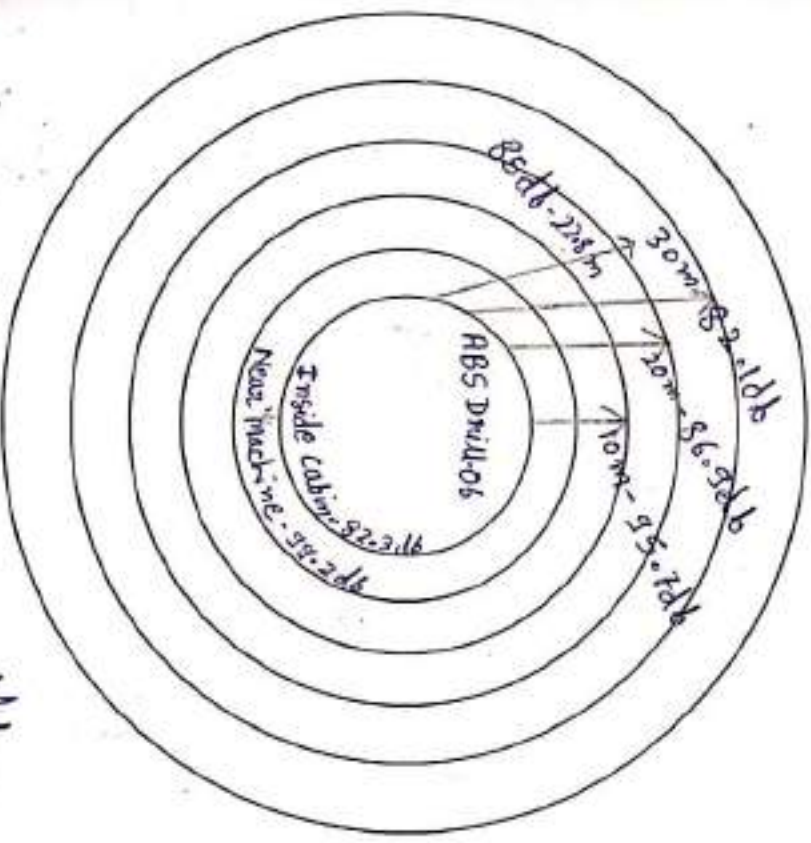
[Signature]
SAFETY OFFICER
NTPC

[Signature]
MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF - April 2024

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
	28/04/24	ABS Drill 06	North east	82.3db	-	99.2db	22.8m	95.7db	86.9db	82.1db	
	28/04/24	310 HP Pump	360RL Sector-3	-	-	91.2db	07.8m	83.4db	78.3db	72.5db	



GERMAN
TSMPL

OVERMAN
NTPC

SAFETY OFFICER
TSMPL

MINING HEAD
TSMPL

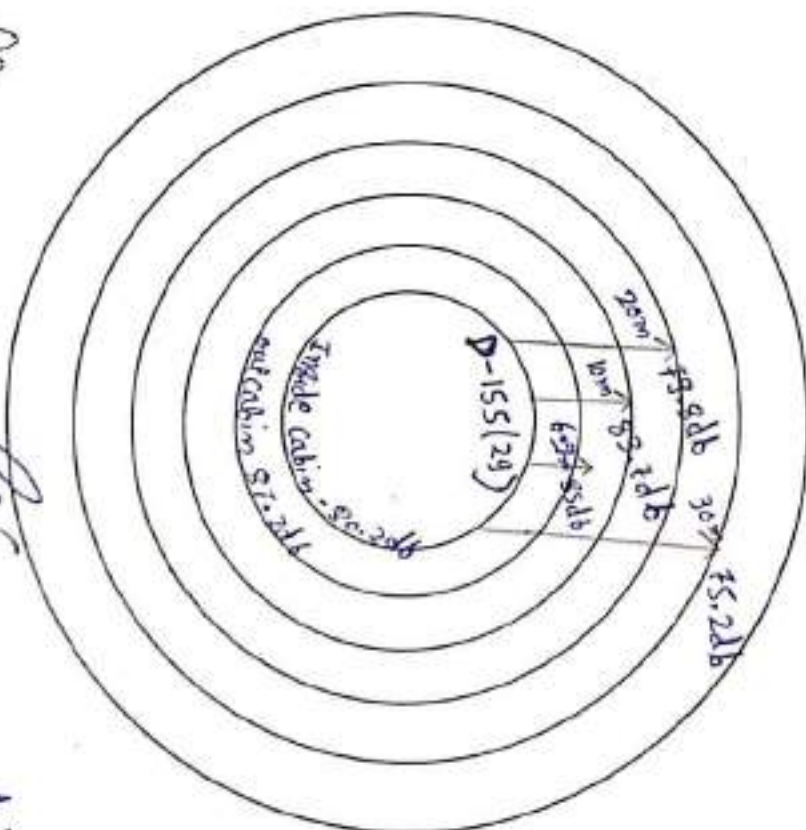
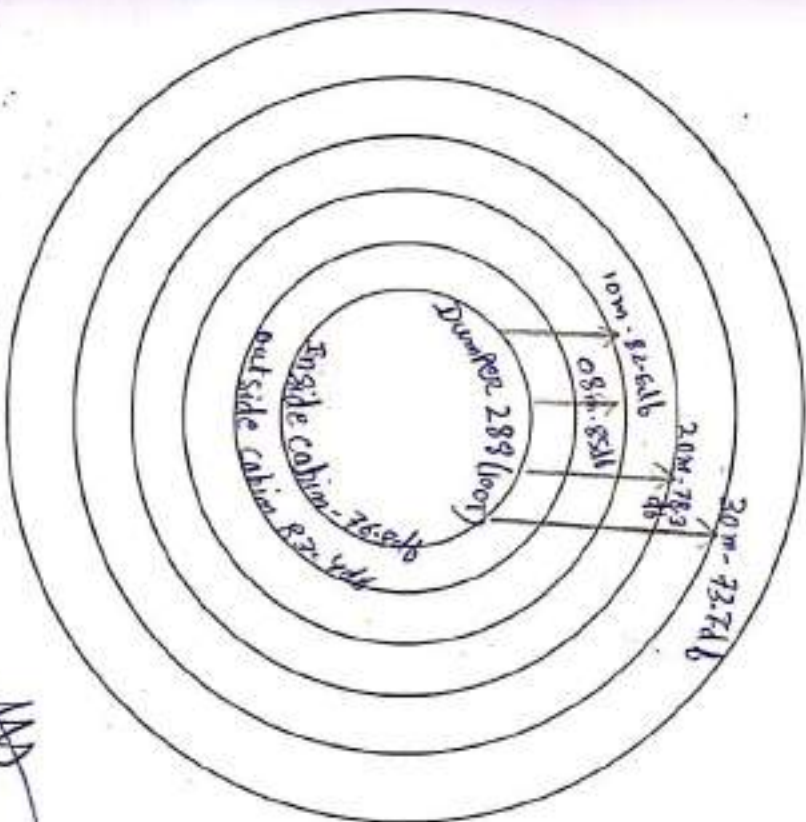
SAFETY OFFICER
NTPC

MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF - April 2024

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 95 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
	28-04-24	Dumper 288 (Load)	Dumper Parking Area	76.8 db	83.4 db	-	08 m	82.5 db	78.3	73.7	
	28-04-24	D-155 (29)	380 RL - South Bottom sector-3	80.2 db	87.2 db	-	60.9 m	83.7 db	79.8 db	75.2 db	



OVERMAN
TSMPL

OVERMAN
NTPC

SAFETY OFFICER
TSMPL

MINING HEAD
TSMPL

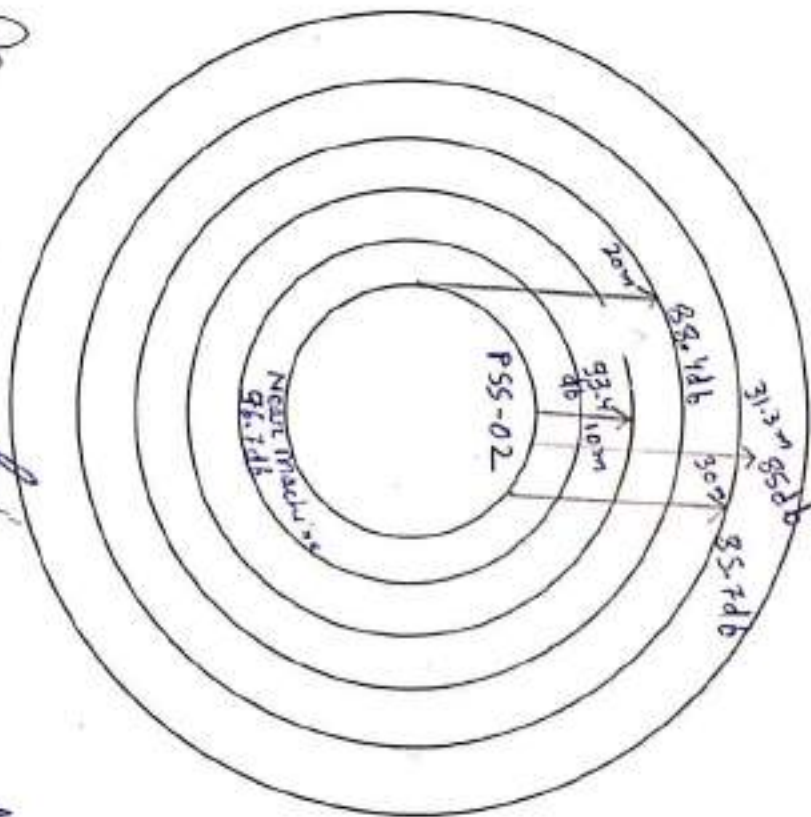
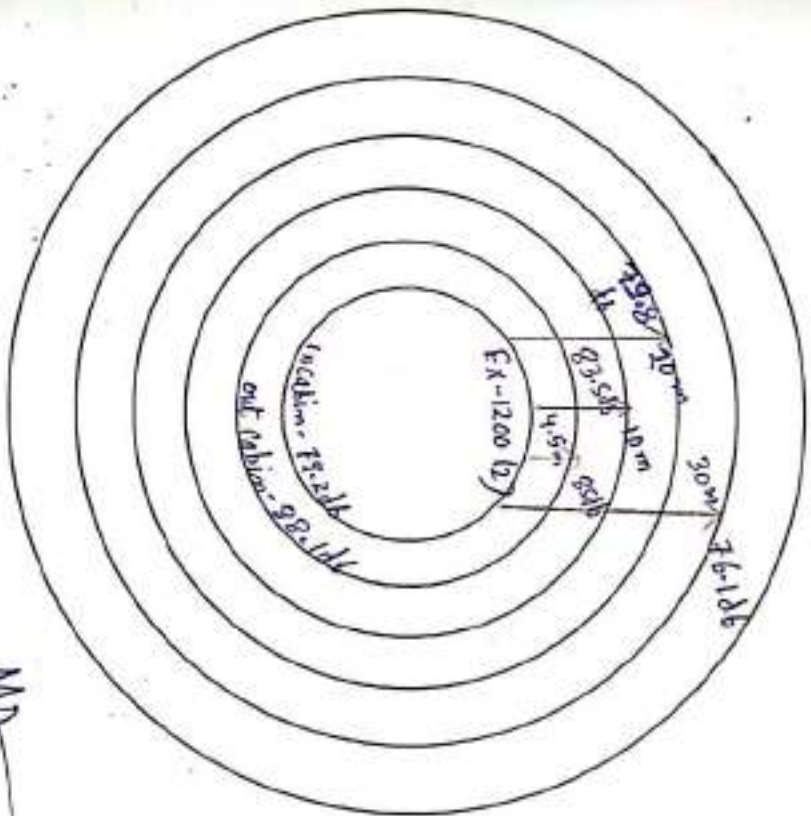
SAFETY OFFICER
NTPC

MINES MAN.
NTPC

NOISE SURVEY RESULT FOR THE MONTH OF - April 2024

NAME OF MINES :- PAKRI BARWADIH COAL MINES PROJECT

NO.	DATE	NAME OF MACHINE	LOCATION OF MACHINE	IN SIDE CABIN (db)	OUT SIDE CABIN (db)	NEAR MACHINE (db)	MAX. DISTANCE TO 85 db (IN METER)	10M FROM MACHINE (IN db)	20M FROM MACHINE (IN db)	30M FROM MACHINE (IN db)	REMARKS
	29/04/24	EX-1200 (2)	South east	79.2db	88.1db	-	4.5m	83.5db	79.8db	76.1db	
	30/04/24	PSS-02	Crusher	-	-	96.7db	31.3m	93.4db	88.4db	85.7db	



ERMAN SMPL

OVERMAN NTPC

SAFETY OFFICER TSMPL

MINING HEAD TSMPL

SAFETY OFFICER NTPC

MINES MAN. NTPC

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **07/10/2023**
Time : **17:14:03 PM**
Validity upto : **06/04/2024**



Certificate SL. No. : JH00400080026899
Registration No. : JH02BN3158
Date of Registration : 24/Apr/2014
Month & Year of Manufacturing : December-2013
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE III
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.300.00
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	2.14

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल संचालक (परिवहन विभाग) / JGM (ENVT. MGMT.)
प्रो.वि.सी. लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **12/01/2024**
Time : **14:32:39 PM**
Validity upto : **11/07/2024**



Certificate SL. No. : JH00400080030654
Registration No. : JH01AX1199
Date of Registration : 07/Jan/2013
Month & Year of Manufacturing : November-2012
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE III
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.120.00
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	2.02

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल संचयन (प्राथमिक) (JGM) (ENVY. MGMT.)
प्रौद्योगिकी (प्रॉजैक्ट्स) (NTPC) Limited
कोयला खनन प्रॉजैक्ट्स (COAL MINING PROJECTS)
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **10/07/2023**
Time : **11:39:50 AM**
Validity upto : **09/01/2024**



Certificate SL. No. : JH00400080024004
Registration No. : OR05AP3299
Date of Registration : 24/Mar/2011
Month & Year of Manufacturing : February-2011
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE III
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.120.0
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	2.03

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://vahan.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल संचयन (वाटर ड्रॉप) / JGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **10/07/2023**
Time : **11:47:39 AM**
Validity upto : **09/01/2024**



Certificate SL. No. : JH00400080024007
Registration No. : JH01AU5799
Date of Registration : 22/Aug/2012
Month & Year of Manufacturing : August-2012
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE III
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.120.0
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	2.28

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://vahan.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल संचयन (प्राथमिक धरण) / JGM (ERVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

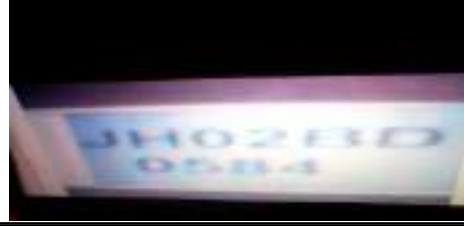
Authorised By :
Government of Jharkhand

Date : **21/12/2023**
Time : **17:01:08 PM**
Validity upto : **20/12/2024**



Certificate SL. No. : JH00400080029602
Registration No. : JH02BD0584
Date of Registration : 21/Jan/2021
Month & Year of Manufacturing : December-2020
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE VI
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.120.00
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.31

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल शक्ति (पारिवहन) / JGM (ENVY. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **20/12/2023**
Time : **11:52:53 AM**
Validity upto : **19/06/2024**



Certificate SL. No. : JH00400080029494
Registration No. : JH10AS0571
Date of Registration : 28/Jan/2015
Month & Year of Manufacturing : December-2014
Valid Mobile Number : *****8888
Emission Norms : BHARAT STAGE III
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.300.00
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	2.21

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल संचयन (पानी संचयन) / JGM (ENVY. MGMT.)
प्रोवाहण (प्रायोजन) NTPC Limited
कोयला संचयन (COAL MINING PROJECTS)
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

Authorised By :
Government of Jharkhand

Date : **07/04/2023**
Time : **15:35:15 PM**
Validity upto : **06/04/2024**



Certificate SL. No. : JH00400080020707
Registration No. : JH02BG9970
Date of Registration : 18/Jan/2022
Month & Year of Manufacturing : June-2021
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE VI
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.300.0
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	0.7	0.22

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://vahan.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
एन सी सी सी (एन सी सी सी) / NCCS (ENVT. MGMT.)
प्रोप्रीटी (एन सी सी सी) / NTPC Limited
भारत कोयला परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Form 59

[See rules 115 (2)]

Pollution Under Control Certificate

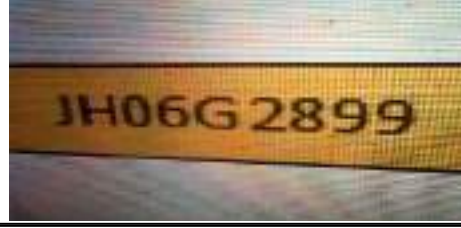
Authorised By :
Government of Jharkhand

Date : **07/10/2023**
Time : **17:17:53 PM**
Validity upto : **06/04/2024**



Certificate SL. No. : JH00400080026903
Registration No. : JH06G2899
Date of Registration : 17/Apr/2008
Month & Year of Manufacturing : April-2008
Valid Mobile Number : *****5555
Emission Norms : BHARAT STAGE II
Fuel : DIESEL
PUC Code : JH0040008
GSTIN :
Fees : Rs.300.00
(GST to be paid extra as applicable)
MIL observation : No

Vehicle Photo with Registration plate
60 mm x 30 mm



Sr. No.	Pollutant (as applicable)	Units (as applicable)	Emission limits	Measured Value (upto 2 decimal places)
1	2	3	4	5
Idling Emissions	Carbon Monoxide (CO)	percentage (%)		
	Hydrocarbon, (THC/HC)	ppm		
High idling emissions	CO	percentage (%)		
	RPM	RPM	2500 ± 200	
	Lambda	-	1 ± 0.03	
Smoke Density	Light absorption coefficient	1/metre	2.45	0.22

This PUC certificate is system generated through the national register of motor vehicles and does not require any signature.

Note : 1. Vehicle owners to link their mobile numbers to registered vehicle by logging to <https://puc.parivahan.gov.in>

Authorised Signature with stamp of PUC operator
60mm x 20 mm

Navin Kumar
नवीन कुमार / NAVIN KUMAR
का. प्रदूषण (वाहन) विभाग / JGM (ENVY. MGMT.)
प्रदूषण (वाहन) NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



NTPC Limited
Pakri Barwadih Coal Mining Project

Ref. No: 1040/PBCMP/Min/2017/114

Date: 20.04.2017


OFFICE ORDER No 23A / 2017

Further to the office order regarding the reconstitution of Environment Management Cell for Pakribarwadih Coal Mining Project, the following enclosed structure shall function for the Environment Management with immediate effect for the Pakribarwadih Coal Mining Project.

The cell is responsible for

1. Compliance of statutory conditions given in the Environment , Forest Clearance groundwater clearance etc.
2. Organize the visit of various officials and implementing the suggestions for betterment of the environment.
3. Submit the statutory compliance reports.
4. Organize Environment awareness programs.
5. Implement the innovative measures for the environment protection
6. Documentation etc.

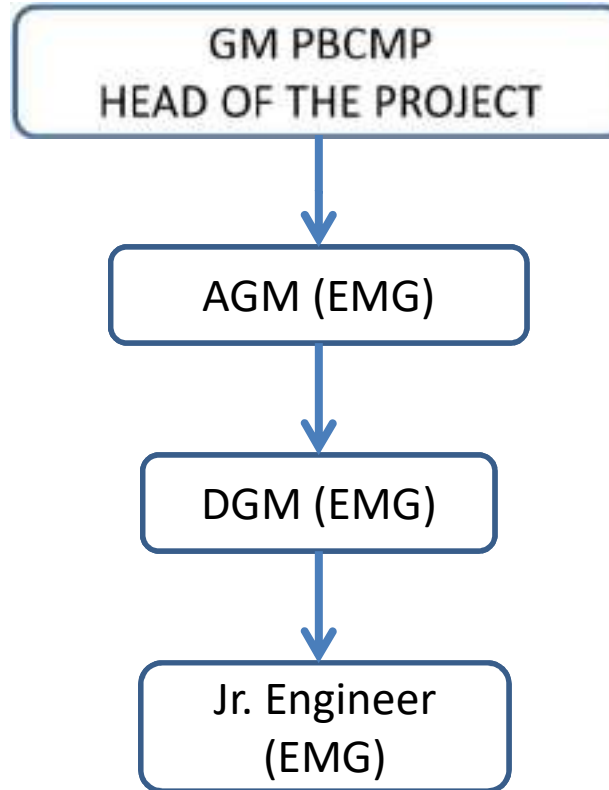
This issues with the approval of the competent authority.


T. Gopalakrishna
Group General Manager,

CC:
All HODs – For Kind information please.
Concerned executives.

Navin Kumar
नवीन कुमार / NAVIN KUMAR
का. प्रशासक (पर्यावरण प्रशासन) / JGM (ENVT. MGMT.)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

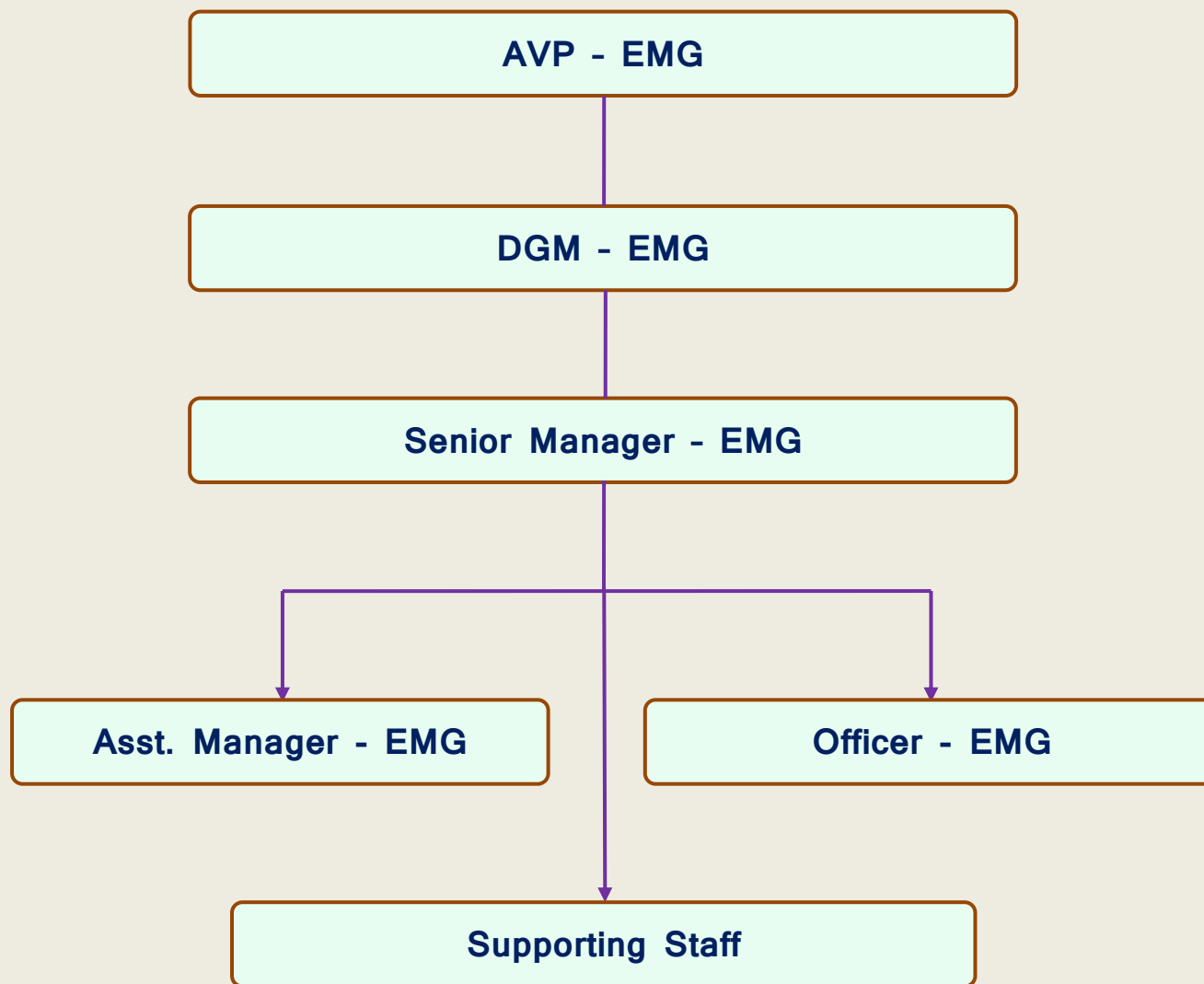
ENVIRONMENT MANAGEMENT CELL AT NTPC - PBCMP



Navin Kumar

नवीन कुमार / NAVIN KUMAR
ज्येष्ठ अभियंता (पर्यावरण प्रबंधन) / JGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

ENVIRONMENT MANAGEMENT CELL
THRIVENI SAINIK MINING PVT. LTD.
PAKRI BARWADIH COAL MINING PROJECT



Navin Kumar



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Ref. No. 1040/PBCMP/EMG/2024/F-47/53

Dated: 03.04.2024

To,

The Deputy Commissioner,
District Hazaribagh
Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Madam,

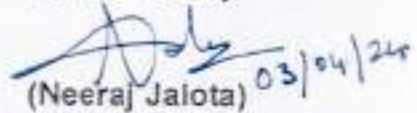
With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stock holders.

Thanking you,

Yours sincerely


(Neeraj Jaiota) 03/04/24

Head of the Project
PBCMP

नीरज जलोटा / NEERAJ JALOTA
मुख्य प्रशासक, कोयला खनन (पीसी एन टीपीसी लिमिटेड)
CHIEF GENERAL MANAGER, COAL MINING PROJECTS, NTPC Limited
कोयला खनन परियोजनाएँ / Coal Mining Projects
हजारीबाग / Hazaribag

Encl.: As above

Copy to:

1. Regional officer, Regional office of MoEF&CC, Ranchi, Jharkhand

नवीन कुमार / NAVIN KUMAR

का. प्रशासक (पर्यावरण प्रशासक) / DGM (ENVT. MGMT.)

(एनटीपीसी लिमिटेड) NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारीबाग / Hazaribag

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311

पंजीकृत कार्यालय : एनटीपीसी भवन, सोनोप कॉम्प्लेक्स, 7, इन्स्टिट्यूशनल एरिया, लोदी रोड, नई दिल्ली - 110003. टेलीफोन नं./Tel: 011-26387333, फैक्स नं./Fax: 011-26381018

Registered Office : NTPC Bhawan, Sonoo Complex, 7, Institutional Area, Lodhi Road, New Delhi - 110003. E-mail : ntpcc@ntpc.co.in, Website : www.ntpc.co.in



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Ref. No. 1040/PBCMP/EMG/2024/F-47/ 55

Dated: 03.04.2024

To,

District Industry Centre,
Hazaribagh, Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih
Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Sir,

With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stock holders.

Thanking you,

Yours sincerely

Handwritten signature and date
06/04/2024

Handwritten signature
Navin Kumar
(Navin Kumar)

नवीन कुमार / NAVIN KUMAR
ज. संयोजक (पर्यावरण प्रबंधन) / JGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Encl.: As above

Copy to:

1. Regional Officer, Regional office of MoEF&CC, Ranchi, Jharkhand

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Ref. No. 1040/PBCMP/EMG/2024/F-47/56

Dated: 03.04.2024

To,

The Chief Municipal Officer,
Municipal Corporation,
Hazaribagh, Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Sir,

With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stock holders.

Thanking you,

Yours sincerely


(Navin Kumar)

नवीन कुमार / NAVIN KUMAR
एन टी पी सी लिमिटेड (एनटीपीसी लिमिटेड) | DGM (ENVT. MGMT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ COAL MINING PROJECTS
हजारीबाग / Hazaribag

Encl.: As above

Copy to:

1. Regional Officer, Regional office of MoEF&CC, Ranchi, Jharkhand

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Ref. No. 1040/PBCMP/EMG/2024/F-47/52

Dated: 03.04.2024

To,

The Circle Officer,
Barkagaon Block, Hazaribagh,
Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Sir,

With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stack holders.

Thanking you,

Yours sincerely

Navin Kumar

(Navin Kumar)

नवीन कुमार / NAVIN KUMAR
एन टी पी सी लिमिटेड (एन टी पी सी लिमिटेड) / OGN (ENVT. MGMT.)
एन टी पी सी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Encl.: As above

Copy to:

1. Regional Officer, Regional office of MoEF&CC, Ranchi, Jharkhand

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag
Dated: 03.04.2024

Ref. No. 1040/PBCMP/EMG/2024/F-47/58

To,

The Circle Officer,
Keredari Block, Hazaribagh,
Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Sir,

With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stock holders.

Thanking you,

Yours sincerely


(Navin Kumar)

नवीन कुमार NAVIN KUMAR
जो सहायक, पर्यावरण सहायक / OGM (ENVT MGMT.)
प्रदेशीय कार्यालय NTPC Limited
कोयला खनन परियोजनाएँ - COAL MINING PROJECTS
हजारीबाग - Hazaribag

Encl.: As above

Copy to:

1. Regional Officer, Regional office of MoEF&CC, Ranchi, Jharkhand

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Dated: 03.04.2024

Ref. No. 1040/PBCMP/EMG/2024/F-47/59

To,

The Mukhiya,
Chepakalan village Panchayat,
Hazaribagh, Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih
Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Sir,

With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stock holders.

Thanking you,

Yours sincerely

Reinf. Party
06/03/2024

Navin Kumar
(Navin Kumar)

नवीन कुमार / NAVIN KUMAR
असिस्टेंट मैनजर, एनटीपीसी (सीवी) लिमिटेड,
कोयला खनन परियोजनाएँ / NTPC Limited
हजारीबाग (जि. हजारीबाग) / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Encl.: As above

Copy to:

1. Regional Officer, Regional office of MoEF&CC, Ranchi, Jharkhand

कोयला खनन परियोजनाएँ, सिक्री साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Dated: 03.04.2024

Ref. No. 1040/PBCMP/EMG/2024/F-47/ 67

To,

The Mukhiya,
Bariatu village Panchayat,
Hazaribagh, Jharkhand

Sub: Information regarding grant of Environment Clearance (EC) to Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

Ref: File No. J-11015/692/2007-IA-II(M), dated 06/03/2024

Respected Sir,

With reference to above subject this is to inform your good office that Pakri Barwadih Coal Mining Project of NTPC Limited has been granted Environment clearance (EC) for expansion of Peak Rated Capacity (PRC) from 15 MTPA to 18 MTPA vide its letter no. J-11015/692/2007-IA-II(M) dated 06.03.2024.

As per standard EC condition no. 10.2 "The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt."

In this regard a copy of EC is being submitted to your good office for your kind reference. It is requested to kindly advise the concerned to make it convenient to display the copy of the EC at your good office for wider view to the stock holders.

Thanking you,

Yours sincerely


उपमुखिया
ग्राम पंचायत बारियातु
करेडारी, हजारीबाग



(Navin Kumar)

नावीन कुमार NAVIN KUMAR
जो संयोजक (परिचालन) डीएम (एनटीपीसी) हजारीबाग
एनटीपीसी लिमिटेड NTPC Limited
कोयला खनन परियोजनाएँ COAL MINING PROJECTS
हजारीबाग Hazaribag

Encl.: As above

Copy to:

1. Regional Officer, Regional office of MoEF&CC, Ranchi, Jharkhand

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkageon, Hazaribag - 825311

Newspaper: Danik Jagran

Date of Publish: 03.04.2024

आंगनवाड़ी सेविकाओं को दी गई कुपोषण संबंधित जानकारी

संवाद सूत्र मरकवाड़ी (कोडरमा) प्रखण्ड कार्यालय परिसर मरकवाड़ी के सभागार में सम्पन्नित बाल विकास परियोजना कार्यालय में एनटीपीसी एकजुट के माध्यम से राष्ठी सेविकाओं को प्रशिक्षण दिया गया। इसमें कुपोषित बच्चों की संख्या को कम करना एवं कुपोषित बच्चों को रफर करने में सहयोग करने समेत अन्य विषयों पर चर्चा की गई। इस मौके पर सीडीपीओ कर्वाला की महिला पर्यवेक्षिका चापुती कुमारी, विभा कुमारी के अलावे जिला समन्वय राजकुमार तिवारी, प्रखण्ड समन्वयक रौनक शर्मा, पर्यटन सुपरवाइजर कृष्ण दाम, अमिता शुर्मा शो।

एनटीपीसी NTPC Limited
(A Govt. of India Enterprise)

PAKRI BARWADIH COAL MINING PROJECT, HAZARIBAG

NOTICE

Pakri Barwadih Coal Mining Project, Hazaribag, NTPC Limited has been accorded Environmental Clearance from Ministry of Environment, Forest and Climate Change (MoEF & CC) for expansion from 15MTPA to 18 MTPA coal production. A copy of Environment Clearance is available with the Jharkhand State Pollution Control Board (JSPCB) and may also be seen at the website of Ministry of Environment, Forest and Climate Change at <https://parivesh.nic.in/newupgrade/track>YourProposal?clearance=1>

एनटीपीसी एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)

पकरी बरवाडीह कोयला खनन परियोजना, हजारीबाग

सूचना

पकरी बरवाडीह कोयला खनन परियोजना, हजारीबाग, एनटीपीसी लिमिटेड को पर्यावरण, वन एवं जलवायु परिवर्तन विभाग (MoEF & CC) द्वारा 15 एनटीपीसी से 18 एनटीपीसी कोयला उत्पादन तक विस्तार की लिए स्वीकृति प्रदान की गई है। जिसकी प्रति प्रारम्भिक चरण प्रदूषण नियंत्रण बोर्ड (JSPCB) में उपलब्ध है एवं इसे पर्यावरण, वन एवं जलवायु विभाग के वेबसाइट <https://parivesh.nic.in/newupgrade/track>YourProposal?clearance=1> पर भी देखा जा सकता है।

हजारीबाग बाजार डायरेक्ट्री

विज्ञापन देने के लिए संपर्क करें : 9415664239, 9621055695

GEETA NATIONAL PUBLIC SCHOOL HAZARIBAG

ADMISSION IS GOING ON

CLASS: NURSERY TO XII CBSE (Curriculum)

विज्ञापन एवं प्रचार विभाग।
क- कक्षा में विद्यार्थी को गणना करा।
क- कक्षा में विद्यार्थी को गणना करा।

Navin Kumar

नवा- कुमार / NAVIN KUMAR
 एक सहायक (सहायक प्रबंधक) / DGM (ENR, W&MT)
 एनटीपीसी लिमिटेड / NTPC Limited
 भारत सरकार परियोजना (COA), MINING PROJECTS
 हजारीबाग / Hazaribag

उसका गमना किया गया। इस घटना के उद्भेदन को लेकर घटना के बाद से ही पुलिस काफी सक्रिय हो उठी। साथ ही रात में ही इसमें शामिल साजिशकर्ता सहित रफ़्तार व आर्म सप्लायर को धर दबोचा।

पूजा पंतव्य के हथियारों का बचपन देने का काम किया है। बरकतुल्ला विधानसभा प्रभारी भुवनेश्वर केरवट, किसान महासभा के प्रदेश अध्यक्ष बोपन सिंह ने कहा कि मोदी सरकार किसान मजदूर के

भाकना माल राज्य कमटी सदस्य भुनेश्वर बंदिय, इच्छाबाई नौगवन तथा प्रदेश उपाध्यक्ष शिव सिंह, कमटी अध्यक्ष अनुज मेहता विकास मेहता सहित कई लोग उपस्थित थे।

41 किलो अफीम व 103 किलो डोडा किया जब्त

भाकना न्यूज़ा ख़ास

राजरा पुलिस ने बड़े पैमाने पर अफीम व डोडा बरामद किया है। मादक पदार्थों के साथ चार तस्करो को भी गिरफ्तार किया गया है। एसपी विकास पांडेय ने मंगलवार की शाम अपने कार्यालय में आयोजित प्रेस कॉन्फ्रेंस में बताया कि कुंदा एवं लावालीग थाना पुलिस ने अलग-अलग इलाकों में छापेमारी अभियान चलाकर अफीम और डोडा का बड़ा खेप बरामद किया है। इस में मौलाना चर तस्करो को गिरफ्तार किया है। गिरफ्तार तस्करो में कुंदा थाना क्षेत्र के टिटही गांव निवासी बहादुर

गंडू, वीरेंद्र गंडू, इंदियार गंडू एवं लावालीग थाना क्षेत्र के पससाम गांव निवासी चंद्रदेव गंडू का नाम शामिल है। बरामद अफीम का वजन 41.500 किलोग्राम है। जबकि डोडा का वजन 103 किलो है। जिसकी अनुमानित मूल्य सवा दो करोड़ रुपए आंकी गई है। एसपी ने बताया कि कुंदा थाना क्षेत्र के टिटही व बड़गांव तथा लावालीग थाना क्षेत्र के हंसिर एवं पससाम गांव के कुछ लोग अपने-अपने घरों में भारी मात्रा में अफीम व डोडा रखे हुए है। सिवईया अनुमंडल पुलिस फ़ाईकसरी अजय कुमार केसरी के नेतृत्व में छापेमारी दल का गठन

किया गया। गठित टीम ने कुंदा के बहादुर गंडू के घर से 10.300 किलोग्राम अफीम व नौ खेप में कुल 103 किलो डोडा, वीरेंद्र गंडू के घर से 2.230 किलोग्राम गिला अफीम तथा इंदियार गंडू के घर से 2.80 किलोग्राम तथा लावालीग थाना क्षेत्र के हंसिर गांव निवासी सन गंडू के घर से 5.885 किलोग्राम अफीम तथा पससाम गांव निवासी चंद्रदेव गंडू के घर से 24.250 किलोग्राम किला अफीम बरामद किया गया। छापेमारी दल में सिवईया एसडीपीओ के अलावा कुंदा थाना प्रभारी निवेश कुमार, लावालीग थाना प्रभारी संतो कुमार एवं दोनों थाना के सरासरी दल के जवान शामिल थे।

मी का डंका



रामनवमी का त्यौहार बड़े ही धूमधाम से मनाया जाता है। इस बार शहर में लगभग 20 से अधिक कलबों के द्वारा रामनवमी पूजा मनाया जा रहा है। पहले मंगलवार को आधा दर्जन से अधिक कलबों के द्वारा मंगला जुलूस निकाला गया।

एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)

पक्की बरवाडीह कोयला खनन परियोजना, हज़ारीबाग

सूचना

पक्की बरवाडीह कोयला खनन परियोजना, हज़ारीबाग, एनटीपीसी लिमिटेड को पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय (MoEF & CC) द्वारा 15 एमपीए से 18 एमपीए कोयला उत्पादन तक विस्तार के लिए स्वीकृति प्रदान की गई है, जिसकी प्रति झारखण्ड राज्य प्रदूषण नियंत्रण बोर्ड (JSPCB) में उपलब्ध है एवं इसे पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय की वेबसाइट <https://parivesh.nic.in/newupgrade/#/trackYourProposal?clearance=1> पर देखा जा सकता है।

NOTICE

Pakri Barwadih Coal Mining Project, Hazaribag, NTPC Limited has been accorded Environmental Clearance from Ministry of Environment, Forest and Climate Change (MoEF & CC) for expansion from 15 MTPA to 18 MTPA coal production. A copy of Environment Clearance is available with the Jharkhand State Pollution Control Board (JSPCB) and may also be seen at the website of Ministry of Environment, Forest and Climate Change at <https://parivesh.nic.in/newupgrade/#/trackYourProposal?clearance=1>

Navin Kumar



Office of the Principal Chief Conservator of Forests,
Wildlife & Chief Wildlife Warden, Jharkhand.
Van Bhawan, Doranda, Ranchi-834002
Email : pccf-wildlife@gov.in, Phone No. 0651-2481744



Office Order No. **33**.....

Date **03-08-2023**

Sanction Order of the Site-Specific Wildlife Management Plan with reference to diversion of 1026.438 ha of forest land Pakri Barwadih Coal Mining Project in favour of M/s. NTPC Ltd in Hazaribagh district of Jharkhand.

The instant Site-Specific Wildlife Management Plan (referred to as "the Plan" here in after) has been prepared by Ecos Offset Private Ltd on behalf of M/s. NTPC Ltd in Hazaribagh. (referred to as "the User Agency or M/s NTPC Ltd") in pursuance of the following conditions/ Terms of Reference laid by MoEF&CC under item no 11 of Stage-II vide letter no. 8-56/2009-FC dated 17.09.2010 for diversion of 1026.438 Ha of forest land under Pakri Barwadih Coal Mining Project in Hazaribag district of Jharkhand:

The aforesaid Term of Reference laid by the Central Government reads as follows:

11. The User Agency will assist the State Government in conservation and preservation of flora and fauna of the area in accordance with the plan prepared by the Chief Wildlife Warden of the State.

In the above stated background, the Regional Chief Conservator of Forests, Hazaribag (RCCF, Hazaribag) vide his letter no. 1543 dated 22.06.2023 has submitted the Plan to the office of the undersigned for its due sanction.

In order to examine the plan prescriptions a communication was issued to the Regional Chief Conservator of Forests, Hazaribag, vide this office letter no. 888 dated 19.07.2023, to arrange a Power-Point Presentation on 25-07-2023 in the Office chamber of the undersigned. The presentation was made by the PP in the presence of RCCF, Hazaribag, DFO, Hazaribag West, Sri H.S Gupta (Ex PCCF, Wildlife, Jharkhand), Sri Navin Kumar, DGM (Envt.) PBCMP, NTPC Ltd and Sri Kislay Kumar (Consultant) Ecos Offset Private Ltd.

The cost of the Plan with respect to the activities to be carried out by DFO, Hazaribag West has been estimated to be Rs. 12567.32 lakh. The summary of the proposed interventions (component wise) under the Plan with the objective of conservation of forest and wildlife resources as also to mitigate the impacts of mining on forests and wildlife is as follows:

Navin Kumar

नवा- कुमार / NAVIN KUMAR
डी गेनरल (एन्वायन एंड फोरसट) / DGM (ENVT. WGMF)
एन्वायन एंड फोरसट / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

S.N.	Work Component	Cost estimates (Rs. In Lakh) To be implemented by the DFO Hazaribag West
1	Habitat Development and Management	4887.77
2	Improvement of Water Regime	1902.93
3	Fire line laying and maintenance	444.02
4	Capacity building of forest department	467.23
5	Human Wildlife conflict/elephant depredation management	466.66
6	Establishment of Anti depredation camp	58.00
7	Conservation Awareness	292.11
8	Community-Development	961.06
9	Monitoring and Evaluation and Regulatory mechanism	690.00
10	Control room for managing wildlife, fire prevention and wildlife crime control at Barakagaon	202.99
11	Contingency amount	100.00
	Total:-	10472.77
12	Rate inflation @20%	2094.55
	Grand Total:-	12567.32

The Plan with a total financial outlay of Rs. 12567.32 Lakh extends over a period of 10 years (Year 2023-24 to 2032-33; tentatively) shall be utilized by the Forest Department through the DFO, Hazaribag West in accordance with the Plan prescriptions. Amount Rs 12567.32 Lakhs of SSWMP has been deposited in CAMPA Account by User Agency vide ref no NC01R/2020247586 & 87/23.03.2021 dated 24.03.2021

Considering the proposals under the plan, sanction is hereby accorded to the instant Plan subject to the following conditions:

- (i) That the User Agency shall ensure that its officials/contractors and the work force engaged into mining and allied operations under the Project shall not commit or abet any forest/wildlife offence in their area of operation. They will also promptly report any forest/wildlife offence in the area to the nearest forest office/official. Further, they will extend their full cooperation to the forest officials in control/mitigation of any incident, natural or man -made, detrimental to forest and wildlife in their area of operation.
- (ii) *That the User Agency shall implement the activities mentioned under Chapter 4 of the Plan. The implementation shall be under the direction and strict supervision of DFO, Hazaribag West Division.*
- (iii) That as regards the funds earmarked against activities to be undertaken by the State Forest Department, DFO, Hazaribag West Division shall prepare a detailed Annual Plan of Operations (APO) in the beginning of every financial year in respect of the instant Plan following all the rules, regulations, Schedule of Rates etc. issued from time to time by the State Government/ Forest Department. Regional Chief Conservator of Forests, Hazaribag shall accord sanction to the said APO following due process and he/she will closely monitor the progress of the activities undertaken by Divisional Forest Officer, Hazaribag West.

Navin Kumar

- (iv) That the Conservator of Forests, Hazaribag shall supervise all the activities as per directions issued by the Forest Department from time to time.
- (v) That the DFO, Hazaribag West shall carry out the activities under the Plan strictly as per the duly sanctioned APO.
- (vi) That the DFO, Hazaribag West shall ensure that no violation of duly sanctioned Working Plan of Hazaribag West Forest Division takes place during implementation of any of the activities involved in this plan over notified and demarcated forest land.
- (vii) That at least one year before the expiry of the instant Plan the User Agency shall formulate and submit to the Forest Department another plan in continuation of the instant plan for next 10 years. The impact of implementation of this Plan shall be evaluated by the competent authority.
- (viii) That the instant Plan is dynamic and may be revisited after every 2 years and a revised plan may be formulated as per need of the project impacted area and convenience of the implementing agencies. The revised plan, if any, shall be put up before the Principal Chief Conservator of Forests, Wildlife & Chief Wildlife Warden, Jharkhand for its due approval.
- (ix) That though adequate provisions have been made towards cost escalation in the plan viz. increase in wage rate/ material cost etc., yet the User Agency shall submit an undertaking to the Divisional Forest Officer, Hazaribag West to the effect that they will deposit extra cost of the plan beyond the cost escalation provision owing to increase in wage rate etc. in due course of time as well as consequent upon revision in the plan, if any, as and when given effect to by the competent authority.

Sd/-
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No.

Dated:

Copy forwarded to Deputy Director General of Forests (Central), Ministry of Environment, Forests and Climate Change, Integrated Regional Office, Harmu Housing Colony, Ranchi [E-mail: ro.ranchi-mef@gov.in] for information and necessary action.

Sd/-
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Navin Kumar

नवा- कुमार / NAVIN KUMAR

का प्राधिकार (प्रमाण प्रदान) / DGM (ENIT, W&M)

अधीनस्थ / NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारिबाग / Hazaribag

बिनाखनन के बिना / without Coal Mining

Memo No. Dated:

Copy forwarded to Additional Chief Secretary, Department of Forests, Environment and Climate Change, Govt. of Jharkhand Ranchi/ Principal Chief Conservator of Forests, Jharkhand, Ranchi/ Principal Chief Conservator of Forests-cum-Executive Director, Wasteland Development Board, Jharkhand, Ranchi for Information.

Sd/-
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. Dated:

Copy forwarded to Additional Principal Chief Conservator of Forests, CAMPA, Jharkhand, Ranchi with a copy of plan for Information and necessary action.

Sd/-
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. Dated:

Copy forwarded to Regional Chief Conservator of Forests, Hazaribag/Conservator of Forests, Hazaribag/ Divisional Forest Officer, Hazaribag West Forest Division for information and necessary action.

Sd/-
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

Memo No. 1006 Dated: 03-08-2023

Copy forwarded to Regional Executive Director, NTPC Coal Mining Project, Chutia, Ranchi, Jharkhand [E-mail: myreddy@ntpc.co.in] for information and necessary action.

Sumant 03/8/23
Principal Chief Conservator of Forests
Wildlife and Chief Wildlife Warden, Jharkhand

3/8

3/8/23

Navin Kumar

नवा- कुमार / NAVIN KUMAR
का पारंपरिक (सर्वोच्च) डीएम (ENV. WGM)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारिबाग / Hazaribag



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

संदर्भ संख्या: 1040/PBCMP/EMG/2021/F-28/68

सेवा में,

वन प्रमंडल पदाधिकारी,
हजारीबाग पश्चिमी वन प्रमंडल,
वन भवन हजारीबाग (झारखण्ड)।
Email:-dfohazwest@jharkhand.gov.in

विषय: एनटीपीसी के पकरी बरवाडीह कोल खनन परियोजना में प्रोजेक्ट स्पेसिफिक वन्यप्राणी प्रबंधन योजना विकसित करने हेतु Ad-Hoc CAMPA में भुगतान के संबंध में।

प्रसंग: आपके कार्यालय के पत्रांक संख्या 2882 दिनांक 12.08.2021

महाशय,

उपरोक्त विषयक प्रसंगाधीन पत्र के संदर्भ में महाशय को सादर सूचित करना चाहूँगा कि एनटीपीसी लिमिटेड पकरी बरवाडीह कोल खनन परियोजना द्वारा प्रोजेक्ट स्पेसिफिक वन्यप्राणी प्रबंधन योजना विकसित करने हेतु Ad-Hoc CAMPA में कुल राशि Rs 1,25,67,32,412/- (रु- एक अरब पच्चीस करोड़ सरसठ लाख बत्तीस हजार चार सौ बारह) ई-पेमेंट के माध्यम से जमा कर दी गयी थी जिसका विवरण निम्न है।

Sl.No	Particular	Amount (Rs)	Bank Detail
1.	Ref no NC019/2020247586/23.03.2021 dated 24.03.2021 with payment ref no CMS1871689150	90,00,00,000.00	CORPORATION BANK, LODHI COMPLEX BRANCH A/C no 1507258693000472
2.	Ref no NC025/2020247586/23.03.2021 dated 24.03.2021 with payment ref no CMS1871691878	35,67,32,412.00	CORPORATION BANK, LODHI COMPLEX BRANCH A/C no 1507258693000472
	कुल राशि	1,25,67,32,412.00	

उपर्युक्त ई-पेमेंट की प्रति हमारे कार्यालय के पत्रांक संख्या-1040/PBCMP/EMG/2021/F-28/55 दिनांक 29.07.2021 के द्वारा दिनांक 30.07.2021 को आपके कार्यालय को प्राप्त करा दिया गया था। (प्रति सलग्र) और इसी क्रम में पुनः इस पत्र के साथ उपर्युक्त ई-पेमेंट की प्रति महाशय को सादर प्रेषित कर रहा हूँ।

अतः उक्त विषय के संदर्भ में महाशय से निवेदन है कि प्रोजेक्ट स्पेसिफिक वन्यप्राणी प्रबंधन योजना विकसित करने के लिए Ad-Hoc CAMPA में जमा कि गयी राशि का उपयोग के तत्पश्चात उपयोगिता प्रमाण पत्र निर्गत करने का कष्ट करें।

महाशय के सादर सूचनार्थ एवं उत्तरोत्तर कार्यवाही हेतु समर्पित।

आपका विश्वासभाजक


बिरेन्द्र कुमार | 23/8/2021

उप- महाप्रबंधक (पर्यावरण प्रबंधन)

पकरी बरवाडीह कोयला खनन परियोजना, हजारीबाग

बिरेन्द्र कुमार/ BIRENDRA KUMAR
उप महाप्रबंधक (पर्यावरण) / DGM & HOD
(पर्यावरण प्रबंधन) / Environment Management
कोल, लोधी रोड, बरवाडीह / P.O. C/O & Hazaribag
कोयला खनन परियोजनाएँ / Coal Mining Projects
एनटीपीसी लिमिटेड / NTPC Limited
हजारीबाग / Hazaribag

सलग्रक:- पयोक्त


नवा- कुमार / NAVIN KUMAR

का प्राधिकार (कोयला खनन) / DGM (ENT. & MGT.)
एनटीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग – 825311
Coal Mining Projects, Sikri Site Office, Barkagaon, Hazaribag - 825311

पंजीकृत कार्यालय : एनटीपीसी भवन, स्कोप कॉम्प्लेक्स, 7, इंस्टिट्यूशनल एरिया, लोधी रोड, नई दिल्ली – 110 003. टेलीफोन नं./Tel : 011-24387333, फैक्स नं./Fax : 01124381018
Registered Office : NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodi Road, New Delhi - 110003. E-mail : ntpccc@ntpc.co.in, Website : www.ntpc.co.in



एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

कोयला खनन परियोजनाएँ, हजारीबाग
Coal Mining Projects, Hazaribag

Dated: 29.07.2021

Ref: 1040/PBCMP/EMG/2021/F-89/55

सेवा में,

वन प्रमंडल पदाधिकारी,
हजारीबाग पश्चिमी वन प्रमंडल,
वन भवन हजारीबाग (झारखण्ड)।

Email:-dfohazwest@jharkhand.gov.in

विषय :- एन. टी. पी.सी. लि. के पकरी बरवाडीह कोयला खनन परियोजना में प्रोजेक्ट स्पेसिफिक वन्यप्राणी प्रबंधन योजना विकसित करने हेतु Ad-hoc CAMPA में भुगतान के संबंध में।

प्रसंग:- 1). आपके कार्यालय के पत्रांक 3701 दिनांक 27.10.2020।


महाशय,

उपरोक्त विषयक प्रसंगाधीन पत्र संख्या 3701 दिनांक 27.10.2020 के आलोक में महाशय को सादर सूचित करना चाहूँगा कि उक्त विषय के संदर्भ में एन. टी. पी.सी. लि. द्वारा प्रोजेक्ट स्पेसिफिक वन्यप्राणी प्रबंधन योजना विकसित करने हेतु Ad-hoc CAMPA में पकरी बरवाडीह कोयला खनन परियोजना के लिए रुपए 1,25,67,32,412/- मात्र (एक अरब पच्चीस करोड़ सरसठ लाख बत्तीस हजार चार सौ बारह रुपए मात्र) online ई-पेमेंट के माध्यम से दिनांक 24.03.2021 को जमा कर दी गयी है जिसकी पावती की प्रति इस पत्र के साथ संलग्न है।

अतः उक्त के संदर्भ में महाशय से निवेदन है कि प्रोजेक्ट स्पेसिफिक वन्यप्राणी प्रबंधन योजना विकसित करने के लिए Ad-hoc CAMPA में जमा की गयी राशि के उपयोग के तत्पश्चात उपयोगिता प्रमाण पत्र निर्गत करने का कष्ट करें।

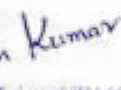
महाशय के सादर सूचनार्थ एवं उत्तरोत्तर कार्यवाही हेतु समर्पित।

आपका विश्वासभाजक


उप- महाप्रबंधक (पर्यावरण प्रबंधन)
पीबी, सीबी एवं बादम कोयला खनन परियोजनाएँ,
एन टी पी सी - हजारीबाग

वीरेन्द्र कुमार / BIRENDRA KUMAR
उप महाप्रबंधक एवं निदेशक (पर्यावरण) / OGM & NOD
(पर्यावरण प्रबंधन) / Environmental Management
सी.बी. सी.पी. एवं बादम / P.B. C.B. & Badam
कोयला खनन परियोजनाएँ / Coal Mining Projects
प्रोक्टर एन्टीपीसी लिमिटेड
हजारीबाग / Hazaribag

सलप्रक :- यथोक्त


नवीन कुमार / NAVIN KUMAR
उप महाप्रबंधक (पर्यावरण प्रबंधन) / OGM (ENVT. MGMT.)
एन्टीपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

कोयला खनन परियोजनाएँ, सिकरी साईट कार्यालय, बड़कागाँव, हजारीबाग - 825311
Coal Mining Projects, Sikri Site Office, Barkageon, Hazaribag - 825311

पंजीकृत कार्यालय : एनटीपीसी भवन, स्कोप कॉम्प्लेक्स, 7, इंस्टिट्यूशनल एरिया, लोदी रोड, नई दिल्ली - 110 003. टेलीफोन नं./Tel: 011-24387333, फैक्स नं./Fax: 01124381018
Registered Office : NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodi Road, New Delhi - 110003. E-mail : nfpcoc@ntpc.co.in, Website : www.ntpc.co.in

(E.H.) P.No.-55
16/11/2020



कार्यालय - वन प्रमंडल पदाधिकारी,
हजारीबाग पश्चिमी वन प्रमंडल, वन भवन, हजारीबाग

☎ 06546-222339, Email- dfo.hazaribagwest@rediffmail.com & dfo-hazaribagwest@gov.in

सेवा में,
पत्रांक :- 3701
मुख्य महाप्रबंधक,
एनटीपीसी,
(पीबीओ & सीबी),
फकरीबरवाडीह, कोल मार्ग, न्त,
सिकरी, बडकागांव, हजारीबाग।

दिनांक - 27/10/2020

Dam Exam
Exam

विषय- एनटीपीसी लिमिटेड की फकरीबरवाडीह कोल खनन परियोजना हेतु 1026.438 हे० वनभूमि अपरयोजना का प्रस्ताव के संबंध में।

महाराज,
उपरोक्त विषयक पत्र के संबंध में सूचित करना है कि प्रधान मुख्य वन संरक्षक-सह-कार्यकारी निदेशक, वंजर भूमि विकास बोर्ड, झारखण्ड, राँची के पत्रांक 742 दिनांक 21.09.2020 (छाया प्रति संलग्न) द्वारा दिये गये निर्देश के आलोक में वन्यप्राणी प्रबंधन योजना हेतु राशि की मांग निम्नवत है -

3319.42 ha. X 3.786 = 1,25,67,32,412.00 रूपया (एक अरब पच्चीस करोड सरसठ लाख बत्तीस हजार चार सौ बारह) ई-पेमेन्ट के माध्यम से Ad-hoc CAMPA कैम्पा के खाता में जमा करते हुए जमा की गई राशि की स्थापित प्रति इस कार्यालय में समर्पित करना सुनिश्चित किया जाय।

अनुलग्नक- यथोक्त।

आपकी विश्वासी
27/10/2020
वन प्रमंडल पदाधिकारी
हजारीबाग पश्चिमी प्रमंडल

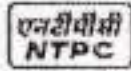
me

Navin Kumar

नवा- कुमार / NAVIN KUMAR
का सहायक (व्यवस्थापन) / DGM (ENIT, BGM),
एनटीपीसी लिमिटेड / NTPC Limited
बंदर वन परियोजना / COAL MINING PROJECTS
हजारीबाग / Hazaribag

291-

310



Transforming lives

Name of the Company: **NTPC Limited**
 Registered Office: NTPC Bhawan, SCOPE Complex, 7, Institutional Area
 Lodhi Road, New Delhi - 110003
 CIN: **L40101DL1975GOI007966**
 PAN: **AAACN0256D**
 Telephone No.:
 FAX No.:
 eMail:
 Website: www.ntpc.co.in

NTPC Limited

Pakri Barwadih, Chat Barlatu & Kerandari CMP
 Sikri Site Office, P.O. Barkaga
 Hazaribag - JHARKHAND 825311

Ref No. / संदर्भ संख्या: NC01R/2020247586/23.03.2021

To / सेवा में,
 Ad-hoc CAMPA Account No CA 1587
 CORPORATION BANK
 DG FOREST & SPECIAL SECRETARY,
 GOI MOEF, PARYAVARAN BHAVAN
 CGO COMPLEX LODHI ROAD
 NEW DELHI 110003
 Email :

Date / दिनांक: 24.03.2021

Dear Sir / Madam,
 आदरणीय महोदय/महोदया,

We are pleased to inform you that the company has arranged to remit the amount as per the following details, directly to your bank CORPORATION BANK, LODHI COMPLEX BRANCH account number 150725869300472 with Payment Ref No : CMS1871689150.

हमें आपको यह सूचित करने में प्रसन्नता हो रही है कि कंपनी ने निम्नलिखित विवरण के अनुसार राशि को सीधे आपके बैंक CORPORATION BANK, LODHI COMPLEX BRANCH खाता संख्या 150725869300472 पर जमा करने की व्यवस्था की है।

S.N.	PO Ref. No.	Bill Ref. No.	Details	Amount (Rs.)
1	8200317556	5669300472	Invoiced Value	900,000,000.00
Total Amount Paid				900,000,000.00

Amount (in words) / राशि : Rupees Ninety Crore Only.

The amount has been credited to your bank account as indicated above through Electronic Clearing Service (ECS) and therefore, no service charge is deductible by your bank.

उपरोक्त वर्णित राशि इलेक्ट्रॉनिक विसर्गिंग सेवा (ईसीएस) के माध्यम से आपके बैंक खाते में जमा की गई है और इसलिए, आपके बैंक द्वारा इसके लिए कोई सेवा शुल्क नहीं लगाया जा सकता है।

If the amount is not received in your account kindly contact the EIC (Engineer in Charge) / Store Department, giving the above reference number.

यदि राशि आपके खाते में जमा नहीं होती है तो कृपया ईआईसी (इंजीनियर, प्रभारी) / स्टोर विभाग से उपरोक्त संदर्भ संख्या के साथ संपर्क करें।

This is a computer generated communication and does not require any signature.

Navin Kumar

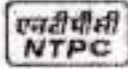
नवा - कुमार / NAVIN KUMAR

का सहायक (विकास प्रबंधक) / OGM (ENVT. & SAFETY)

एनटीपीसी लिमिटेड / NTPC Limited

कोयला खनन परियोजनाएँ / COAL MINING PROJECTS

हजारिबाग / Hazaribag



Transforming lives

Name of the Company **NTPC Limited**
Registered Office **NTPC Bhawan, SCOPE Complex, T, Institutional Area
Lodi Road, New Delhi - 110003**
CIN **L40101DL1975GO007966**
PAN **AAACN0255D**
Telephone No.
FAX No.
e-Mail
Website **www.ntpc.co.in**

NTPC Limited

Pakri Barwadih, Chat Bariatu & Kerandari CMP
Sikri Site Office, P.O. Barkaga
Hazaribag - JHARKHAND 825311

Ref No. / सन्दर्भ संख्या: NC02R/2020247587/23.03.2021

To/ सेवा में,
Ad-hoc CAMPA Account No CA 1587
CORPORATION BANK
DG FOREST & SPECIAL SECRETARY,
GOI, MOEF, PARYAVARAN BHAVAN
CGO COMPLEX LODHI ROAD
NEW DELHI 110003
Email :

Date / दिनांक: 24.03.2021

Dear Sir / Madam,
आदरणीय महोदय/महोदया,

We are pleased to inform you that the company has arranged to remit the amount as per the following details, directly to your bank CORPORATION BANK, LODHI COMPLEX BRANCH account number 150725869300472 with Payment Ref No : CMS1871691870.

हमें आपको यह सूचित करने में प्रसन्नता हो रही है कि कंपनी ने निम्नलिखित विवरण के अनुसार राशि को सीधे आपके बैंक CORPORATION BANK, LODHI COMPLEX BRANCH खाता संख्या 150725869300472 पर जमा करने की व्यवस्था की है।

S.N.	PO Ref. No.	Bill Ref. No.	Details	Amount (Rs.)
1	8200317556	5869300472-2	Invoiced Value	356,732,412.00
Total Amount Paid				356,732,412.00

Amount (in words) / राशि : Rupees Thirty-Five Crore Sixty-Seven Lakh Thirty-Two

The amount has been credited to your bank account as indicated above through Electronic Clearing Service (ECS) and therefore, no service charge is deductible by your bank.

उपरोक्त वर्णित राशि इलेक्ट्रॉनिक क्लियरिंग सेवा (ईसीएस) के माध्यम से आपके बैंक खाते में जमा की गई है और इसलिए, आपके बैंक द्वारा इसके लिए कोई सेवा शुल्क नहीं लगाया जा सकता है।

If the amount is not received in your account kindly contact the EIC (Engineer in Charge) / Store Department, giving the above reference number.

यदि राशि आपके खाते में प्राप्त नहीं होती है तो कृपया ईआईसी (इंजीनियर प्रभारी) / स्टोर विभाग से उपरोक्त संदर्भ संख्या के साथ संपर्क करें।

This is a computer generated communication and does not require any signature.

Navin Kumar
नवा- कुमार / NAVIN KUMAR
का सहायक (विकास प्रबन्ध) / DGM (ENR, BG&A)
आपूर्ति विभाग / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारबाग / Hazaribag

Online payment history made by User Agency under CAMPA

Help

Sno.	Proposal Detail	Application_No	Application No (New)	Date of IN-PRINCIPLE	Amount to be Paid/Amount Paid (in Rs.)	Payment Status	Payment Detail	Demand Letter
1	FP/JH/MIN/693/2009 (../viewreport.aspx?pid=FP/JH/MIN/693/2009) DIVERSION OF 1026.438 HA OF FOREST LAND FOR COAL MINING FROM PAKRIBARWADIH PROJECT IN FAVOUR OF M/S NTPC. (COAL MINING)	MIN6932009472	5869300472	11 May 2010	CA: 0/- Addl CA : 0/- PCA: 0/- CAT : 0/- Safety Zone: 0/- Addl PA : 0/- WILD LIFE MANAGEMENT PLAN CHARGES : NPV: 0/- Other Charges1 0/- Other Charges2 0/- Other Charges3 0/- Total : 1256732412/-	PAID	Fund Demand Verified by 16 Mar 2021 Modal Officer On Bank Name Corporation Bank Mode of Payment NEFT/RTGS Challan (Challan) Generated 16 Mar 2021 On Transaction Date 24 Mar 2021	Demand Letter (../writereaddata/Fundpdf/311912491220N5Y0Q98CM WILDIFEMANAGEMENTPLANDemandletter_opt.pdf) Generated Challan (../UserAccount/Nett_ChallanCorp.aspx?pid=MIN6932009472)

Navin Kumar
 नवान कुमार / NAVIN KUMAR
 कक्षा सहायक (सर्विस प्रोबल) / OGM (ENVT. & S&T)
 एनटीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

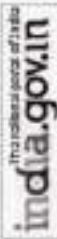


SWACHH BHARAT (HTTPS://SWACHHBHARAT.MYGOV.IN/)



(WWW.DIGITALINDIA.GOV.IN)

(HTTPS://DATA.GOV.IN/)



(HTTPS://INDIA.GOV.IN/)

MY GOV (HTTPS://WWW.MYGOV.IN/)



(HTTP://MEITY.GOV.IN/)



(HTTP://WWW.PMINDIA.GOV.IN/EN/)



(HTTP://WWW.NIC.IN/)

© Content Owned, Updated and Maintained by Ministry of Environment, Forest and Climate Change, Government of India

Terms & Conditions (https://parivesh.nic.in/termsandconditions.aspx) | Privacy Policy

(https://parivesh.nic.in/privacypolicy.aspx) | Copyright Policy (https://parivesh.nic.in/copyrightpolicy.aspx) |

Hyperlinking Policy (https://parivesh.nic.in/hyperlinkingpolicy.aspx) | Accessibility Statement

(https://parivesh.nic.in/accessibilitystatement.aspx) | Disclaimer (https://parivesh.nic.in/disclaimer.aspx) | Contact

Us (https://parivesh.nic.in/contact.aspx)

For any Technical support, Please Contact EFCCID, NIC, New Delhi, monitoring-ic(at)nic(dot)in

Navin Kumar

नवीन कुमार / NAVIN KUMAR
जल सार्वजनिक (संयोजन विभाग), DGM (ENVT. & GMF)
मिडकोल एनएस/ NTPC Limited
खदान खनन प्रोजेक्ट्स/ COAL MINING PROJECTS
हज़ारीबाग / Hazaribag



भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केन्द्रीय भूमि जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	Ntpc Ltd - Pakri Barwadih Coal Mining Project		
Project Address:	O/o General Manager, Site Office Sikri, Barkagaon		
Village:	Pakri Barwadih	Block:	Barkagaon
District:	Hazaribagh	State:	Jharkhand
Pin Code:			
Communication Address:	Pakribarwadih Coal Mining Project, Ntpc Limited, Site Office Sikri, Barkagaon, Hazaribagh, Jharkhand - 825311		
Address of CGWB Regional Office :	Central Ground Water Board Mid Eastern Region, 6th & 7th Floor, Lok Nayak Jai Prakash Bhawan, Fraser Road Dak Banglow, Patna, Bihar - 800011		

1. NOC No.:	CGWA/NOC/MIN/ORIG/2023/17449	2. Date of Issuance	03/01/2023									
3. Application No.:	21-4/910/JH/MIN/2022	4. Category: (GWRE 2020)	Safe									
5. Project Status:	Existing Project	6. NOC Type:	New									
7. Valid from:	03/01/2023	8. Valid up to:	02/01/2025									
9. Ground Water Abstraction Permitted:												
	Fresh Water		Saline Water	Dewatering		Total						
	m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year				
	526.00	191990.00			4500.00	1448010.00						
10. Details of ground water abstraction /Dewatering structures												
	Total Existing No.:4						Total Proposed No.:6					
	DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu
Abstraction Structure*	0	0	4	0	0	3	0	0	6	0	0	1
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps												
11. Ground Water Abstraction/Restoration Charges paid (Rs.):	13961840.00											
12. Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.	No. of Piezometers	Monitoring Mechanism										
		Manual	DWLR**	DWLR With Telemetry								
**DWLR - Digital Water Level Recorder	2	0	1	1								

(Compliance Conditions given overleaf)

This is an auto-generated document & need not to be signed.

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jannagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386745

Website: cgwa-noc.gov.in

पानी बचाये - जीवन बचाये
SAVE WATER - SAVE LIFE

Navin Kumar
नवीन कुमार / NAVIN KUMAR
जल संसाधन (विकास व जल) / CGM (ENVT. & GW)
एनटीपीसी लिमिटेड / NTPC Limited
भारत जल विकास प्रोजेक्ट्स / CGAL MINING PROJECTS
हजारिबाग / Hazaribag

Validity of this NOC shall be subject to compliance of the following conditions:

Mandatory conditions:

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m³/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/dischage of effluents or any such matter as applicable.

General conditions:

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m³/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)

Navin Kumar
नवा- कुमार / NAVIN KUMAR
ज. मा. वि. (सांख्यिक) / JCM (ENV. & M)
एन.पी.सी. / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली – 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाये – जीवन बचाये
SAVE WATER - SAVE LIFE



JHARKHAND STATE POLLUTION CONTROL BOARD
T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI -834004
Phone.:2400852, 2400851, Fax:0651- 2400850 www.jspcb.org

FORM 2
[See rule 6(2)]

FORM FOR GRANT OR RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. No. of authorization and date of issue: JSPCB/HO/RNC/HWM-15671118/2023/77 02/12/2023
2. Reference of application(No. and date): 15671118 24/02/2023
3. NTPC LTD - PBCMP of SHIVAM SRIVASTAVA is hereby granted an authorisation based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilisation, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at CHIEF GENERAL MANAGER, NTPC LTD - PBCMP, SIKRI SITE OFFICE, BARKAGAON, HAZARIBAGH JHARKHAND - 825311

Details of Authorisation

Sl.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity(ton/annum)
1	5.1 (Used/Spent Oil)	Kept in steel drums; recovery and reused by authorized recycler	250 KL/Annum
2	Wastes/Residues Containing Oil	Kept in MS Drums; recovery and reused by authorized recycler	0.25 Tonne/Annum

(1) The authorisation shall be valid for a period of upto 31.03.2028 years

(2) The authorisation is subject to the following general and specific conditions (Please specify any conditions that need to be imposed over and above general conditions, if any):

A General conditions of authorisation:

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.

4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorisation shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

B Specific conditions:

1. That, the occupier shall take prior permission of the Board to close down the plant.
2. That, the renewal of authorization will be subject to compliance of the conditions laid down in this authorization.
3. That, the occupier shall comply with the conditions as per the guidelines prescribed by the MoEF for CPCB.
4. That, the occupier shall comply with all the conditions laid down in this authorization.
5. That, the occupier shall submit quarterly report on hazardous wastes generated and consumed in its sources, products generated or resources conserved (specifying the details like type and quantity of resources conserved) to the Board.
6. That, the occupier shall maintain a log book containing information on quantity on generation, date wise utilization of the same and its disposal, etc.
7. That, the occupier shall maintain record of Hazardous Waste utilized, Hazardous Waste generated and disposal as per form-3 and shall submit the annual returns in form-4 as per Rule 20 (1) and (2) of the Hazardous and other waste (Management & Transboundary Movement) Rules, 2016 to the Board.
8. That, the occupier shall comply with all the directions given by standard operating procedure.
9. That, the occupier shall be responsible for safe and environmentally sound management of hazardous and other wastes.
10. That, the hazardous and other wastes generated in the establishment of an occupier shall be sent or sold to an authorised actual user or shall be disposed of in an authorised disposal facility.
11. That, the hazardous and other wastes shall be transported from an occupier's establishment to an authorised actual user or to an authorised disposal facility in accordance with the provisions of these rules.
12. That, the occupier shall take all the steps while managing hazardous and other wastes to-
 - (a) contain contaminants and prevent accidents and limit their consequences on human beings and the environment; and
 - (b) provide persons working in the site with
13. That, the occupier shall comply with all the conditions laid down in this authorization mentioned in general and specific conditions.
14. That, the occupier shall install a display Board outside its plant showing details such as
 - (a) status of CTO;
 - (b) Status of authorization granted ;
 - (c) Disposal/reuse of hazardous waste generated in the plant and other relevant information as per prescribed guideline and update the same as required.

Memo No:JSPCB/HO/RNC/HWM-
15671118/2023/77
Date: 02/12/2023

Y K Das
Member Secretary

Copy To:

Deputy Commissioner, Hazaribagh/Regional Officer, Regional Office, JSPCB, Hazaribagh for information and necessary action.

Y K Das
Member Secretary



भारत सरकार
GOVERNMENT OF INDIA
विद्युत मंत्रालय, केन्द्रीय विद्युत प्राधिकरण
MINISTRY OF POWER, CENTRAL ELECTRICITY AUTHORITY
क्षेत्रीय निरीक्षण संगठन
REGIONAL INSPECTORIAL ORGANISATION

No. RIO/ER/Approval/NTPC/Pakri Barwadih/2023-24/ 320

Dated: 04/09/2023

श्री संदीप कुमार दत्ता
एनटीपीसी पीबीसीएमपी,
पकरी बरवाडीह, बड़कागांव
हजारीबाग- 825311,
झारखंड।

Shri Sandeep Kumar Dutta
NTPC PBCMP,
Pakri Barwadih, Barkagaon
Hazaribagh- 825311,
Jharkhand

विषय: सीईए (सुरक्षा और विद्युत आपूर्ति से संबंधित उपाय) विनियम, 2023 के विनियमन -32 के तहत एनटीपीसी पकरी बरवाडीह कोयला खनन परियोजना (पीबीसीएमपी), हजारीबाग, झारखंड में पीबीएसएस, सीएचपी, एमडीओ और जेडीईएल सबस्टेशन पर विद्युत स्थापना के ऊर्जाकरण के लिए स्वीकृति।

Subject: Approval to keep energised the Electrical Installation at PBSS, CHP, MDO & JDEL substation at NTPC Pakri Barwadih Coal Mining Project (PBCMP), Hazaribagh, Jharkhand under Regulation-32 of CEA (Measures Relating to Safety and Electric Supply) Regulations, 2023.

Ref: 1. Your Application No- C/2023/06133 dated 13.07.2023.
2. Inspection Report vide No. RIO/ER/Ins.Rep/NTPC/Pakri Barwadih/2023-24/277 dated 16.08.2023.
3. Your compliance sent via email dated dated 04.09.2023.

Whereas the inspection of Electrical Installations at PBSS, CHP, MDO & JDEL substation at NTPC Pakri Barwadih Coal Mining Project (PBCMP), Hazaribagh, Jharkhand as in the subject was carried out by the undersigned on 11.08.2023, and whereas your compliance of our observations raised under reference no.-(2) has been informed vide your compliance report under reference no.-(3).

Approval is hereby granted to keep energize the Electrical Installations at PBSS, CHP, MDO & JDEL substation at NTPC Pakri Barwadih Coal Mining Project (PBCMP), Hazaribagh, Jharkhand. (As per list of equipments at Annexure-I).

This approval is strictly subject to your consistent full compliance with the relevant provisions of CEA (Measures Relating to Safety and Electric Supply) Regulations, 2023 in every respect.

The above installation shall be due for periodical inspection under Regulation-32 within two (2) years from the date of issue of this approval.

Sandeep Kumar
04.09.2023

(सनातन सर्वेश)

उप निदेशक

Navin Kumar
नवा- कुमार / NAVIN KUMAR
प्रतिनिधि: मुख्य अभियंता (सीईआई), सीईए, तीसरी मंजिल, एनआरपीसी, 18ए, एसजेएस मार्ग, कटवारिया
सहायक निदेशक (विद्युत) - 110016.
राज्य विद्युत प्राधिकरण, कोलकाता-700 033, 14, Golf Club Road, Tollygunge, Kolkata-700 033
कोयला खनन परियोजना / COAL MINING PROJECTS
हजारीबाग / Hazaribag

Tele : 033-2423 5108 / 5107, Web : www.cea.nic.in

LIST OF EQUIPMENTS FOR CEA PERIODIC CLEARANCE

SN	EQUIPMENT NAME	QTY.	MAKE	RATING	LOCATION
1	6.6 KV LOAD BREAK SWITCH	5	M/S Parickker Switchgear	630A	MDO
2	16 MVA TRANSFORMER	2	Kirloskar	16MVA, 33/5.9KV	MDO
3	1 MVA TRANSFORMER	7	Sudhir Power Ltd	6.6KV/415V	MDO
4	7 MVA TRANSFORMER	2	Sudhir Power Ltd	6.6KV/415V	MDO
5	7.5 MVA TRANSFORMER	2	Kirloskar	7.5MVA, 33/6.9KV	MDO
6	630 KVA TRANSFORMER	2	Sudhir Power Ltd	6.6KV/415V	MDO
7	500 KVA TRANSFORMER	3	Sudhir Power Ltd	6.6KV/415V	MDO
8	33 KV PT	16	Heplacare Power Pvt Ltd	33V3, 110/V3	MDO
9	33 KV ISOLATOR WITH SINGLE/DOUBLE EARTH SWITCH	14	GR Power Switchgear Ltd	630A	MDO
10	33 KV CT	27	Heplacare Power Pvt Ltd	400/1	MDO
11	33 KV VCB(OUTDOOR TYPE)	9	ABB	630A	MDO
12	33KV RELAY AND CONTROL PANEL	9	ABB	33kv	MDO
13	6.6KV SWITCHGEAR PANEL	2	ABB	6.6kv	MDO
14	6.6KV SWITCHGEAR PANEL	3	Megawin Switchgear	6.6kv	MDO
15	6.6KV VCB	7	Megawin Switchgear	1250A	MDO
16	6.6 KV CAPACITOR	1	Madhav capacitors Pvt Ltd	1800KVAR	MDO
17	6.6 KV CAPACITOR	2	Madhav capacitors Pvt Ltd	750KVAR	SSS2
18	6.6KV HT MOTOR	1	Siemens	180kw	MDO
19	6.6KV HT MOTOR	1	Siemens	200kw	MDO
20	6.6KV HT MOTOR	1	Siemens	250kw	MDO
21	6.6KV HT MOTOR	13	Siemens	315kw	MDO
22	6.6KV HT MOTOR	3	Siemens	280kw	MDO
23	6.6KV HT MOTOR	2	Siemens	450kw	MDO
24	6.6KV HT MOTOR	1	Siemens	600kw	MDO
25	6.6KV HT MOTOR	1	Siemens	710kw	MDO
26	6.6KV Medium Voltage Drive Panel for Belt conveyor	8	Siemens	6.6KV	MDO
27	33KV Double Circuit Transmission Line (Total Line Length - 5.369 KM)	1		33KV	MDO
28	33 KV HT SWITCHGEAR PANEL	1	MEGAWIN	36 KV 1250 A	PBSS
29	11 KV HT SWITCHGEAR PANEL	2	MEGAWIN	11 KV 630 A	PBSS
30	220 KV SFG CIRCUIT BREAKER	27	ALSTOM	220 KV, 1600 A	PBSS
31	220 KV CT	27	ABB	220 KV, 1600 A	PBSS
32	220 KV CVT	24	ABB	220 KV, 1600 A	PBSS
33	220KV ISOLATOR	26	GR POWER	220 KV, 1600 A	PBSS
34	220KV EARTH SWITCH	28	GR POWER	220 KV	PBSS
35	220KV LIGHTNING ARRESTOR	24	OBLUM	220 KV	PBSS
36	1.5 MVA DG	6	JACKSON	1.5 MVA, 11 KV	PBSS
37	50 MVA TRANSFORMER	1	KANCHAR	50 MVA, 220/34.5 KV	PBSS
38	31.5 MVA TRANSFORMER	1	TOSHIBA	31.5 MVA, 132/34.5 KV	PBSS
39	7.5 MVA TRANSFORMER	2	AREVA	7.5 MVA, 33/11 KV	PBSS
40	630 KVA TRANSFORMER	2	AREVA	630 KVA, 11/0.415 KV	PBSS
41	10 MVA TRANSFORMER	2	KANOHAK	10 MVA, 11/33 KV	PBSS
42	33 KV VCB ICOS	6	L&T	33 KV, 1250 A	CHP
43	6.6 KV SWITCHGEAR PANEL	4	L&T	6.6 KV 1250 A	CHP
44	7.5 MVA TRANSFORMER	6	KIRLOSKAR	7.5 MVA, 33/6.9 KV	CHP
45	15 MVA TRANSFORMER	2	KIRLOSKAR	10 MVA, 33/6.9 KV	CHP
46	500 KVA TRANSFORMER	14	KIRLOSKAR	500 KVA 6.9/0.415 KV	CHP
47	630 KVA TRANSFORMER	2	KIRLOSKAR	630 KVA 6.9/0.415 KV	CHP
48	1000 KVA TRANSFORMER	2	KIRLOSKAR	1000 KVA 6.9/0.415 KV	CHP
49	CAPACITOR BANK	4	EPCOS India	1818kVar 7.26KV	CHP
50	6.6 KV HT MOTOR	6	ABB	1100 KW 6.6 KV	CHP
51	6.6 KV HT MOTOR	2	ABB	280 KW 6.6 KV	CHP
52	6.6 KV HT MOTOR	8	ABB	1250 KW 6.6 KV	CHP
53	33 KV HT Cable	95 Km	Hazels	33 KV 1Cx500 sqmm	CHP
54	6.6 KV HT Cable	40 KM	Hazels	6.6KV 3Cx185sqmm	CHP

Sandeep Dutt 13/7/23
 संदीप कुमार दत्त / SANDEEP KR DUTT
 डीएम प्रशासक (विद्युत उपकरण) / Sr. Manager (Electrical)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयले सार्वजनिक उपकरण प्रा. लि.
 हजारीबाग, झारखण्ड

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 डीएम प्रशासक (विद्युत उपकरण) / OGM (ENIT, H&MT)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयले सार्वजनिक उपकरण प्रा. लि.
 हजारीबाग, झारखण्ड

सोनाम
 04.09.2023

LIST OF LT EQUIPMENTS FOR CEA PERIODIC CLEARANCE

Sl.No.	EQUIPMENT NAME	QTY	MAKE	RATING	LOCATION
1	415 V AC DISTRIBUTION BOARD	1	UNILEC	415V	PBSS
2	415 V AC DISTRIBUTION BOARD	1	NITYA ELECTROCONTROLS PVT. LTD	415V	PBSS
3	220 V BATTERY BANK	1	AMARA RAJA	220V/300AH	PBSS
4	220 V BATTERY BANK	1	AMCO POWER STSTEMS LTD.	220V/300AH	PBSS
5	220 V BATTERY CHARGER	2	AMARA RAJA	220V/100A	PBSS
6	220 V DCDB	1	UNILEC	220V DC	PBSS
7	MAIN LIGHTING DISTRIBUTION BOARD	1	UNILEC	415 V	PBSS
8	415 V AC DISTRIBUTION BOARD	9	L&T	415 V	CHP
9	MAIN LIGHTING DISTRIBUTION BOARD	10	L&T	415 V	CHP
10	WELDING RECEPTICLE DISTRIBUTION BOARD	13	L&T	415 V	CHP
11	110 V BATTERY BANK	8	AMCO POWER STSTEMS LTD.	110 V DC	CHP
12	110 V BATTERY CHARGER	8	CHHABI ELECTRICALS	110 V DC	CHP
13	DC DISTRIBUTION BOARD	4	ELECMECH	110 V DC	CHP
14	LT-IMCC Panel	11	SIEMENS	415 V	MDO
15	LT-IMCC Panel	3	SARAVANA SWITCHGEAR	415 V	MDO
16	LT-IMCC Panel	2	PYRO TECH	415 V	MDO
17	LT-IMCC Panel	2	SWITCHING CIRCUIT	415 V	MDO
18	110 V BATTERY BANK	4	EXIDE	110 V DC	MDO
19	110 V BATTERY CHARGER	4	HITACHI	110 V DC	MDO
20	DC DISTRIBUTION BOARD	2	HITACHI	110 V DC	MDO
21	230 V AC DISTRIBUTION BOARD	9	HITACHI	230 V AC	MDO

Navin Kumar
नवीन कुमार / NAVIN KUMAR
 का. प्रबन्धक (सर्विस प्रबन्ध) / OGM (ENVT. MGMT.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

Sandeep Datta 13/7/23
सandeep कुमार दत्ता / SANDEEP KR DUTTA
 सीनियर इंजीनियर (विद्युत प्रबन्ध) / Sr. Manager (Elect. Envt.)
 एनटीपीसी लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

20/01/2023
04.09.2023



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD - 201003 (U.P.)

MOBILE : +91-9810317145, +91-8826028116

E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com

MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

Annexure-58

PAKRI BARWADIH COL MINES, NTPC LTD.					PAKRI BARWADIH COL MINES, NTPC LTD.				
AMBIENT AIR QUALITY MONITORING REPORT, NOVEMBER 2023					AMBIENT AIR QUALITY MONITORING REPORT, NOVEMBER 2023				
Nagri					CHP Area				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	89.2	50.9	14.6	28.8	15.11.2023 - 16.11.2023	87.7	55	18.5	29
20.11.2023 - 21.11.2023	89.8	53.0	14.9	37.6	20.11.2023 - 21.11.2023	88.7	54.5	18	28.6
23.11.2023 - 24.11.2023	85.6	52.9	18.4	34.6	23.11.2023 - 24.11.2023	84.2	52.1	14.8	31.7
27.11.2023 - 28.11.2023	90	53.4	18.1	39.2	27.11.2023 - 28.11.2023	86.3	51.1	18	30.6
30.11.2023 - 01.12.2023	83.4	51.3	14	30.8	30.11.2023 - 01.12.2023	89.5	52.6	15.7	31.4
04.12.2023 - 05.12.2023	89.4	54.3	16.5	31.5	04.12.2023 - 05.12.2023	80	50	18.9	31.9
07.12.2023 - 08.12.2023	80.5	51.5	15.1	38.5	07.12.2023 - 08.12.2023	87.2	52.8	17.3	33.6
11.12.2023 - 12.12.2023	95.5	50.5	15.6	36.7	11.12.2023 - 12.12.2023	98	46.1	15.9	34.6
Minimum	80.5	50.5	14	28.8	Minimum	80	46.1	14.8	28.6
Maximum	95.5	54.3	18.4	38.5	Maximum	98	55	18.9	34.6
Average	87.9	52.3	15.9	33.5	Average	87.7	51.8	16.8	31.4
TP - 5					TP - 6				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	88.2	50.1	16.3	36.9	15.11.2023 - 16.11.2023	81.3	54.2	15.8	38
20.11.2023 - 21.11.2023	87.8	51.4	16.5	29.5	20.11.2023 - 21.11.2023	89.9	50.3	14.4	27.5
23.11.2023 - 24.11.2023	82.5	51.9	17	32.8	23.11.2023 - 24.11.2023	84.1	54.7	17.5	35.2
27.11.2023 - 28.11.2023	85.3	51.6	19	32.7	27.11.2023 - 28.11.2023	81.8	54.8	14.2	35.4
30.11.2023 - 01.12.2023	85.5	54.4	17.9	39.3	30.11.2023 - 01.12.2023	86.5	54.6	18.8	36.3
04.12.2023 - 05.12.2023	81.9	50.3	18.6	37.7	04.12.2023 - 05.12.2023	85.7	52.2	17.4	35.1
07.12.2023 - 08.12.2023	80.1	53.5	18.3	33.3	07.12.2023 - 08.12.2023	85	52.5	15.2	35.5
11.12.2023 - 12.12.2023	83.4	56.7	16.4	29.4	11.12.2023 - 12.12.2023	96.9	48.7	16.8	28.2
Minimum	80.1	50.1	16.3	29.4	Minimum	81.3	46.7	14.2	27.5
Maximum	88.2	56.7	19	39.3	Maximum	96.9	54.8	18.8	39.5
Average	84.3	52.5	17.5	34.0	Average	86.4	52.5	16.3	34.4

PM10 (100µg/m³) for 24 hrs., PM 2.5 (60 µg/m³) for 24 hrs, SO2 (80 µg/m³) for 24 hrs, NO2 (80 µg/m³) for 24 hrs

END OF TEST REPORT

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(BITECHAS KHAR) (Technical Manager)

Navin Kumar
जवाहर कुमार / NAVIN KUMAR
एन एन एल (एन एन एल) / ENVIRO LAB (NTPC)
एन एन एल (एन एन एल) / ENVIRO LAB (NTPC)

AUTHORIZED SIGNATORY
(SHIKHA BHATIYA)



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COL MINES, NTPC Ltd.				
AMBIENT AIR QUALITY MONITORING REPORT, NOVEMBER 2023				
TP - 7				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	85.3	54.9	15	32.4
20.11.2023 - 21.11.2023	81.2	54	18.7	28
23.11.2023 - 24.11.2023	82.4	53.7	17.1	30.1
27.11.2023 - 28.11.2023	83.9	52.7	17.4	33.6
30.11.2023 - 01.12.2023	89.7	52.3	16.9	37.9
04.12.2023 - 05.12.2023	86.7	53.3	18.6	34.5
07.12.2023 - 08.12.2023	81.4	51.2	17.2	31.8
11.12.2023 - 12.12.2023	95.1	45.6	16.2	30.5
Minimum	81.2	45.6	15	28
Maximum	95.1	54.9	18.7	37.9
Average	86.2	52.2	16.9	32.4
TP - 9				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	85.8	51.6	17.4	29.3
20.11.2023 - 21.11.2023	82.3	52.3	15.7	36.7
23.11.2023 - 24.11.2023	84.9	50.6	15.9	32.1
27.11.2023 - 28.11.2023	80.3	52.9	16.1	28.7
30.11.2023 - 01.12.2023	88.9	50.8	16.9	30.9
04.12.2023 - 05.12.2023	82	50.9	15.4	41.2
07.12.2023 - 08.12.2023	89	52.5	15.2	28.5
11.12.2023 - 12.12.2023	87.1	49.3	18	39.1
Minimum	80.3	49.3	15.2	28.5
Maximum	89	52.9	18	41.2
Average	85.0	51.4	16.3	33.6

PAKRI BARWADIH COL MINES, NTPC Ltd.				
AMBIENT AIR QUALITY MONITORING REPORT, NOVEMBER 2023				
TP - 8				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	83.8	50.4	14.3	35.6
20.11.2023 - 21.11.2023	86.4	54.1	17.7	31.5
23.11.2023 - 24.11.2023	80.4	51.7	15.9	33.2
27.11.2023 - 28.11.2023	88.5	53.2	15.4	32.7
30.11.2023 - 01.12.2023	84.8	50.8	18.2	36.6
04.12.2023 - 05.12.2023	80.8	50.6	17.8	34.7
07.12.2023 - 08.12.2023	89.1	53	14.1	38.4
11.12.2023 - 12.12.2023	95.8	56.1	14.9	33.9
Minimum	80.4	50.4	14.1	31.5
Maximum	95.8	56.1	18.2	38.4
Average	86.2	52.5	16.0	34.6
TP - 10				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	84	50.5	17.6	36.8
20.11.2023 - 21.11.2023	81.7	50.3	15.8	31.6
23.11.2023 - 24.11.2023	85.4	51.2	17.6	38.8
27.11.2023 - 28.11.2023	89.6	50.1	17.4	36.1
30.11.2023 - 01.12.2023	83.2	52.8	17.3	37.8
04.12.2023 - 05.12.2023	82.9	50.2	16.3	31.9
07.12.2023 - 08.12.2023	80.6	53	16.6	33
11.12.2023 - 12.12.2023	84.6	45.2	15.3	32.2
Minimum	80.6	45.2	15.3	31.6
Maximum	89.6	53	17.8	38.8
Average	84.0	50.4	16.8	34.8

PM10 (100µg/m3) for 24 hrs., PM 2.5 (60 µg/m3) for 24 hrs, SO2 (80 µg/m3) for 24 hrs, NO2 (80 µg/m3) for 24 hrs

END OF TEST REPORT

FOR GLOBAL ENVIRO LABORATORIES

CHECKED BY
(INTIKHAN KHAN) Technical Manager

नवा कुमार / NAVIN KUMAR
06 9810317145 / 06 8826028116
PLOT NO. 4/5 BARWADIH COAL MINING NTPC Limited
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND

AUTHORIZED SIGNATORY
(SHUKHA MATIYA)



GLOBAL ENVIRO Laboratories

PLOT NO. 4, KHASRA NO. 45, OPPOSITE SHREE MANAN DHAM TEMPLE,
8TH K.M. MILE STONE, INDUSTRIAL AREA, MEERUT ROAD, GHAZIABAD -201003 (U.P.)
MOBILE : +91-9810317145, +91-8826028116
E-mail : global_enviro@rediffmail.com, globalenvirolab@gmail.com
MoEF&CC Recognized Environmental Laboratory

AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT FOR THE MONTH OF NOVEMBER 2023

Name and Address of Customer: M/S PAKRI BARWADIH COAL MINING NTPC LTD.,
LANGATU, BARKAGAON, HAZARIBAGH, JHARKHAND. (INDIA)

PAKRI BARWADIH COL MINES, NTPC LTD.				
AMBIENT AIR QUALITY MONITORING REPORT, NOVEMBER 2023				
Sirka				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	83.1	51.5	17.2	37.2
20.11.2023 - 21.11.2023	88.4	51.7	17.7	31.9
23.11.2023 - 24.11.2023	85.2	52.6	16.4	34.4
27.11.2023 - 28.11.2023	86.9	50.6	14.7	35
30.11.2023 - 01.12.2023	85.1	51.9	15.5	32.4
04.12.2023 - 05.12.2023	81.5	51	16.7	34.5
07.12.2023 - 08.12.2023	82.2	52.9	18.1	29.4
11.12.2023 - 12.12.2023	94.4	45.7	15.6	32.4
Minimum	81.5	50.6	14.7	29.4
Maximum	94.4	52.9	18.1	37.2
Average	84.6	51.7	16.8	33.5

PAKRI BARWADIH COL MINES, NTPC LTD.				
AMBIENT AIR QUALITY MONITORING REPORT, NOVEMBER 2023				
Oderna				
Date	PM ₁₀	PM _{2.5}	SO ₂	NO ₂
15.11.2023 - 16.11.2023	86	51.1	17.4	34.6
20.11.2023 - 21.11.2023	87.5	52.4	17.2	33.7
23.11.2023 - 24.11.2023	87.1	50.1	17.2	33.7
27.11.2023 - 28.11.2023	82.6	51.6	17.7	36.8
30.11.2023 - 01.12.2023	88.3	50.8	16.9	32.1
04.12.2023 - 05.12.2023	88.1	50.9	18.7	41.2
07.12.2023 - 08.12.2023	82.7	50.3	17.8	35.2
11.12.2023 - 12.12.2023	97.2	50.8	16.8	37.8
Minimum	82.6	50.1	16.9	32.1
Maximum	97.2	52.4	18.8	41.2
Average	87.6	51.0	17.8	35.8

PM10 (100µg/m³) for 24 hrs., PM 2.5 (60 µg/m³) for 24 hrs, SO₂ (80 µg/m³) for 24 hrs, NO₂ (80 µg/m³) for 24 hrs.

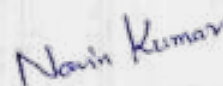
END OF TEST REPORT

Page No. 3 of 3

FOR GLOBAL ENVIRO LABORATORIES

JOIN HANDS TO SAVE ENVIRONMENT


CHECKED BY
(INTEKHAB KHAN)(Technical Manager)





नवा- कुमार / NAVIN KUMAR
का-सहायक (संयोजन विभाग) / OGM (ENVT. & SMT.)
एनटीपीसी / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag


AUTHORISED SIGNATORY
(SHIKHA BHATTIA)



Continue Ambient Air Quality Monitoring Station.



		Online Data of PM10 Analyzer		 			
Home Dashboard Hourly Data Day Wise Data Month Wise Data Star Registration Login							
Past Data:				Export to Excel			
Today				prescribed Limit 100			
Sl. No	Industry Name	stationId	analyserId	Parameter	Process Value	Unit	Submitted Date
1	NTPC Limited Pakribarwadh Coal Mining Project	RAILWAY_SIDE	jhaz_analyzer_60	PM10	30.97	ugm3	2024-04-04 16:15
2	NTPC Limited Pakribarwadh Coal Mining Project	AAQMS_1	jhaz_analyzer_60	PM10	66.47	ugm3	2024-04-04 16:15
3	NTPC Limited Pakribarwadh Coal Mining Project	RAILWAY_SIDE	jhaz_analyzer_60	PM10	33.07	ugm3	2024-04-04 16:45
4	NTPC Limited Pakribarwadh Coal Mining Project	AAQMS_1	jhaz_analyzer_60	PM10	66.47	ugm3	2024-04-04 16:45
5	NTPC Limited Pakribarwadh Coal Mining Project	RAILWAY_SIDE	jhaz_analyzer_60	PM10	27.03	ugm3	2024-04-04 16:15
6	NTPC Limited Pakribarwadh Coal Mining Project	AAQMS_1	jhaz_analyzer_60	PM10	66.47	ugm3	2024-04-04 16:15
7	NTPC Limited Pakribarwadh Coal Mining Project	RAILWAY_SIDE	jhaz_analyzer_60	PM10	36.80	ugm3	2024-04-04 16:00
8	NTPC Limited Pakribarwadh Coal Mining Project	AAQMS_1	jhaz_analyzer_60	PM10	66.47	ugm3	2024-04-04 16:00
9	NTPC Limited Pakribarwadh Coal Mining Project	RAILWAY_SIDE	jhaz_analyzer_60	PM10	45.03	ugm3	2024-04-04 14:45
10	NTPC Limited Pakribarwadh Coal Mining Project	AAQMS_1	jhaz_analyzer_60	PM10	66.47	ugm3	2024-04-04 14:45
11	NTPC Limited Pakribarwadh Coal Mining Project	RAILWAY_SIDE	jhaz_analyzer_60	PM10	36.87	ugm3	2024-04-04 14:30
12	NTPC Limited Pakribarwadh Coal Mining Project	AAQMS_1	jhaz_analyzer_60	PM10	66.47	ugm3	2024-04-04 14:30

Navin Kumar

नवीन कुमार / NAVIN KUMAR
 ज्येष्ठ पारंपरिक (संरक्षण प्रकल्प) / OGM (ENVT. WGMT.)
 जम्हाईवती प्रकल्प / NTPC Limited
 खदान काला परियोजना / COAL MINING PROJECTS
 हाजारीबाग / Hazaribag



Real Time Data Acquisition And Monitoring

Site Name: M/s NTPC Limited ,Pakribarwadih Coal Mining Project

Report: Custom Report

From Date: 2023/10/01 00:00:00 To Date : 2024/03/31 23:59:52

Description	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
Prescribed Standards	0 - 100	0 - 60	0 - 80	0 - 80
Maximum Data	155.89	58.58	84.84	69.8
Minimum Data	0.0	8.23	6.88	19.27
Geometric Mean	56.96	27.43	14.45	38.2
Median	60.87	27.31	12.35	35.21
Standard Deviation	26.88	9.13	7.21	12.28
Maximum Value At Time	2023-10-15	2024-01-17	2024-02-23	2023-10-21
Minimum Value At Time	2024-03-19	2023-12-06	2023-11-28	2023-12-08
Valid Data Points	183	179	179	179
Total Data Points	183	183	183	183
Data Availability %	100.0%	97.81%	97.81%	97.81%


Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
1	2023-10-01	11.32	8.55	9.57	63.88
2	2023-10-02	34.22	20.97	8.61	66.40
3	2023-10-03	24.79	15.91	8.61	68.01
4	2023-10-04	12.13	8.48	8.58	63.67
5	2023-10-05	15.74	9.24	9.39	59.74
6	2023-10-06	15.75	9.38	9.39	56.01
7	2023-10-07	50.67	17.20	9.36	58.16
8	2023-10-08	77.23	25.44	9.23	57.02
9	2023-10-09	136.95	36.53	10.75	63.40
10	2023-10-10	100.34	30.52	11.62	57.76
11	2023-10-11	102.89	32.11	11.95	55.21

Navin Kumar
 नवीन कुमार / NAVIN KUMAR
 का प्राधिकार (वायुमल प्रबंधन) : OGM (ENVT. MGMT.)
 प्रो.वि.सी. ई.ए.सी. / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

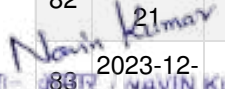
Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
12	2023-10-12	116.68	32.65	11.79	61.46
13	2023-10-13	124.58	34.93	12.79	61.57
14	2023-10-14	154.31	43.80	13.23	59.26
15	2023-10-15	155.89	43.07	12.79	60.35
16	2023-10-16	122.94	36.42	13.38	62.57
17	2023-10-17	88.32	32.45	13.46	56.41
18	2023-10-18	32.56	25.22	12.35	49.71
19	2023-10-19	42.56	32.13	10.58	60.09
20	2023-10-20	42.47	29.76	11.06	60.07
21	2023-10-21	41.39	32.75	12.14	69.80
22	2023-10-22	42.15	NA	NA	NA
23	2023-10-23	48.07	NA	NA	NA
24	2023-10-24	40.37	NA	NA	NA
25	2023-10-25	46.76	NA	NA	NA
26	2023-10-26	56.13	31.13	11.34	38.41
27	2023-10-27	62.95	34.83	12.68	64.43
28	2023-10-28	50.39	30.41	13.10	63.47
29	2023-10-29	42.07	26.32	12.44	63.12
30	2023-10-30	49.55	34.08	12.74	64.63
31	2023-10-31	52.98	36.56	12.64	57.24
32	2023-11-01	38.54	31.78	10.00	54.58
33	2023-11-02	51.39	36.54	11.58	57.13
34	2023-11-03	59.26	47.89	11.82	39.84
35	2023-11-04	55.42	42.23	10.24	40.63

Navin Kumar

Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
36	2023-11-05	50.15	41.58	9.62	44.13
37	2023-11-06	57.71	41.71	11.12	50.44
38	2023-11-07	75.96	41.42	11.04	47.09
39	2023-11-08	76.46	33.93	10.76	46.57
40	2023-11-09	103.39	40.17	9.95	39.04
41	2023-11-10	97.95	41.20	10.97	40.57
42	2023-11-11	85.43	37.00	10.42	33.88
43	2023-11-12	106.17	49.49	10.23	37.55
44	2023-11-13	67.43	31.86	10.16	30.24
45	2023-11-14	59.95	29.05	11.11	30.07
46	2023-11-15	64.30	30.78	8.96	40.31
47	2023-11-16	53.90	25.19	8.85	34.45
48	2023-11-17	36.90	16.04	8.07	30.62
49	2023-11-18	39.05	17.16	8.51	31.29
50	2023-11-19	38.08	15.54	7.92	37.61
51	2023-11-20	44.06	17.10	8.07	34.17
52	2023-11-21	70.16	31.65	7.80	41.38
53	2023-11-22	71.99	35.02	10.12	41.10
54	2023-11-23	74.90	39.22	10.06	49.41
55	2023-11-24	80.15	39.22	10.37	50.20
56	2023-11-25	63.49	35.37	10.29	49.51
57	2023-11-26	74.37	35.61	9.15	51.90
58	2023-11-27	66.69	35.10	7.82	51.35
59	2023-11-28	57.75	27.31	6.88	51.28


 नवा-कुमार / NAVIN KUMAR
 जल सार्वजनिक (प्राधान्य क्षेत्र) / JGM (ENR, W&MT)
 लिमिटेड / JGCs / NTPC Limited
 बिहार जल विद्युत परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag


Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
60	2023-11-29	47.35	24.29	8.03	43.61
61	2023-11-30	63.96	29.34	9.35	45.39
62	2023-12-01	57.94	33.60	9.44	40.17
63	2023-12-02	58.03	24.63	9.44	52.62
64	2023-12-03	46.95	19.75	9.33	48.10
65	2023-12-04	61.26	30.32	9.60	51.44
66	2023-12-05	52.04	24.07	9.46	43.53
67	2023-12-06	17.27	8.23	9.78	42.59
68	2023-12-07	21.19	11.94	17.06	34.24
69	2023-12-08	24.13	12.09	9.87	19.27
70	2023-12-09	27.65	16.93	10.36	25.66
71	2023-12-10	37.79	17.27	10.93	30.78
72	2023-12-11	48.29	21.16	11.10	25.53
73	2023-12-12	51.58	22.76	10.84	24.54
74	2023-12-13	63.03	24.07	12.25	34.08
75	2023-12-14	60.60	25.38	13.13	35.29
76	2023-12-15	68.45	29.95	14.20	31.83
77	2023-12-16	53.14	25.70	13.76	29.71
78	2023-12-17	60.92	28.46	14.86	33.90
79	2023-12-18	75.28	29.50	13.83	33.72
80	2023-12-19	58.05	26.60	13.74	32.32
81	2023-12-20	52.36	28.86	13.76	30.89
82	2023-12-21	61.94	30.92	14.24	32.13
83	2023-12-22	61.28	31.35	14.24	29.66


 नवा- 83 / NAVIN KUMAR
 का प्राधिकार (विकास क्षेत्र) (CGM/ENT./SGMT)
 एन.वी.ए.ए.सी./NTPC Limited
 खनन क्षेत्र विकास (COAL MINING PROJECTS)
 हजारीबाग / Hazaribag

Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
84	2023-12-23	67.43	29.42	14.29	29.62
85	2023-12-24	52.44	24.21	14.57	27.10
86	2023-12-25	45.50	19.87	14.22	23.96
87	2023-12-26	66.31	31.87	15.21	24.57
88	2023-12-27	89.31	41.61	15.53	34.71
89	2023-12-28	82.00	37.84	15.13	28.09
90	2023-12-29	68.76	39.04	15.44	27.23
91	2023-12-30	66.32	32.79	15.46	28.19
92	2023-12-31	59.88	31.44	16.26	27.27
93	2024-01-01	40.06	22.75	14.09	25.11
94	2024-01-02	66.08	31.10	14.83	24.88
95	2024-01-03	72.06	37.55	14.85	21.85
96	2024-01-04	84.22	39.60	15.77	31.68
97	2024-01-05	96.82	47.45	17.84	27.02
98	2024-01-06	88.63	47.66	18.06	27.16
99	2024-01-07	52.85	30.93	16.13	29.91
100	2024-01-08	69.74	34.37	18.27	59.60
101	2024-01-09	47.31	24.22	16.04	32.07
102	2024-01-10	78.57	40.02	19.39	29.97
103	2024-01-11	57.42	25.50	18.32	29.07
104	2024-01-12	58.87	23.68	19.99	39.10
105	2024-01-13	50.23	23.21	19.54	38.99
106	2024-01-14	74.45	30.76	18.64	35.21
107	2024-01-15	68.67	33.57	20.20	37.24

Nashu Kumar


Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
108	2024-01-16	68.57	32.83	22.03	42.79
109	2024-01-17	110.39	58.58	23.05	30.44
110	2024-01-18	64.29	36.60	19.06	26.61
111	2024-01-19	60.87	23.48	23.59	26.32
112	2024-01-20	60.87	33.51	19.81	27.32
113	2024-01-21	60.87	34.30	19.54	28.26
114	2024-01-22	60.87	31.70	19.76	42.16
115	2024-01-23	60.87	23.55	21.42	37.24
116	2024-01-24	60.87	28.02	21.58	30.59
117	2024-01-25	60.87	27.01	21.72	41.07
118	2024-01-26	60.87	28.47	21.65	40.02
119	2024-01-27	60.87	32.90	23.58	36.82
120	2024-01-28	60.87	31.05	24.27	39.36
121	2024-01-29	60.87	31.97	25.41	37.60
122	2024-01-30	60.87	31.46	24.66	35.46
123	2024-01-31	60.87	36.17	21.68	35.38
124	2024-02-01	60.87	50.57	25.14	35.66
125	2024-02-02	60.87	36.18	22.74	36.32
126	2024-02-03	60.87	23.64	21.42	35.09
127	2024-02-04	60.87	24.69	23.94	46.26
128	2024-02-05	60.87	17.80	20.26	30.94
129	2024-02-06	60.87	15.78	19.37	24.26
130	2024-02-07	60.87	16.06	19.37	32.04
131	2024-02-08	60.87	12.72	20.63	30.45


 नवीन कुमार / NAVIN KUMAR
 जे. एम. एल. (ऑपरेशन एंड मैनेजमेंट) / JGM (ENIT, BSMI)
 इन्फोस्टी एंड एनर्जी लिमिटेड / INFOSYS ENRGY Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
132	2024-02-09	60.87	22.26	23.22	38.48
133	2024-02-10	60.87	20.96	22.65	32.19
134	2024-02-11	60.87	27.09	26.27	43.15
135	2024-02-12	60.87	29.03	24.59	31.88
136	2024-02-13	60.87	26.62	21.89	26.05
137	2024-02-14	60.87	21.79	20.08	24.90
138	2024-02-15	60.87	22.24	18.20	22.73
139	2024-02-16	60.87	18.41	18.59	21.41
140	2024-02-17	60.87	16.20	19.16	32.16
141	2024-02-18	60.87	22.69	21.21	31.47
142	2024-02-19	60.87	30.86	23.42	34.36
143	2024-02-20	60.87	26.73	22.57	40.39
144	2024-02-21	60.87	18.75	21.59	33.02
145	2024-02-22	60.87	17.30	22.04	24.55
146	2024-02-23	55.62	17.53	84.84	30.45
147	2024-02-24	50.41	21.33	9.32	21.76
148	2024-02-25	41.68	21.84	9.95	21.39
149	2024-02-26	56.31	25.12	10.48	25.45
150	2024-02-27	59.41	27.21	11.20	22.14
151	2024-02-28	46.71	22.02	12.09	36.34
152	2024-02-29	39.79	19.69	10.74	36.48
153	2024-03-01	40.93	19.61	10.57	33.82
154	2024-03-02	59.54	17.35	10.40	34.88
155	2024-03-03	42.70	18.91	9.46	35.02

Navin Kumar

Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
156	2024-03-04	29.38	20.45	8.40	21.25
157	2024-03-05	41.25	13.17	8.57	23.88
158	2024-03-06	40.92	14.71	10.12	35.93
159	2024-03-07	37.49	19.99	10.81	32.71
160	2024-03-08	44.66	15.30	10.63	28.30
161	2024-03-09	48.38	14.66	10.60	41.74
162	2024-03-10	75.73	19.84	11.64	33.92
163	2024-03-11	75.73	21.78	11.56	39.30
164	2024-03-12	75.73	23.47	11.11	37.46
165	2024-03-13	75.73	20.11	10.64	35.02
166	2024-03-14	75.73	18.99	9.96	24.52
167	2024-03-15	75.73	23.16	10.90	36.27
168	2024-03-16	75.73	27.52	9.76	22.10
169	2024-03-17	75.73	29.32	9.88	26.51
170	2024-03-18	57.97	27.85	11.03	36.16
171	2024-03-19	0.00	18.13	9.14	37.35
172	2024-03-20	0.00	12.06	9.26	21.40
173	2024-03-21	0.00	17.05	9.94	29.16
174	2024-03-22	0.00	20.54	11.37	35.22
175	2024-03-23	0.00	27.43	15.21	46.92
176	2024-03-24	0.00	27.29	14.23	43.91
177	2024-03-25	0.00	33.99	18.33	27.04
178	2024-03-26	0.00	21.55	13.20	28.06
179	2024-03-27	0.00	19.62	11.69	22.90


 नवीन कुमार / NAVIN KUMAR
 जे. एम. एन. सी. (एन. एम. सी.) डी. जी. (एन. एम. सी.)
 प्रो. व्हा. एम. सी. / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

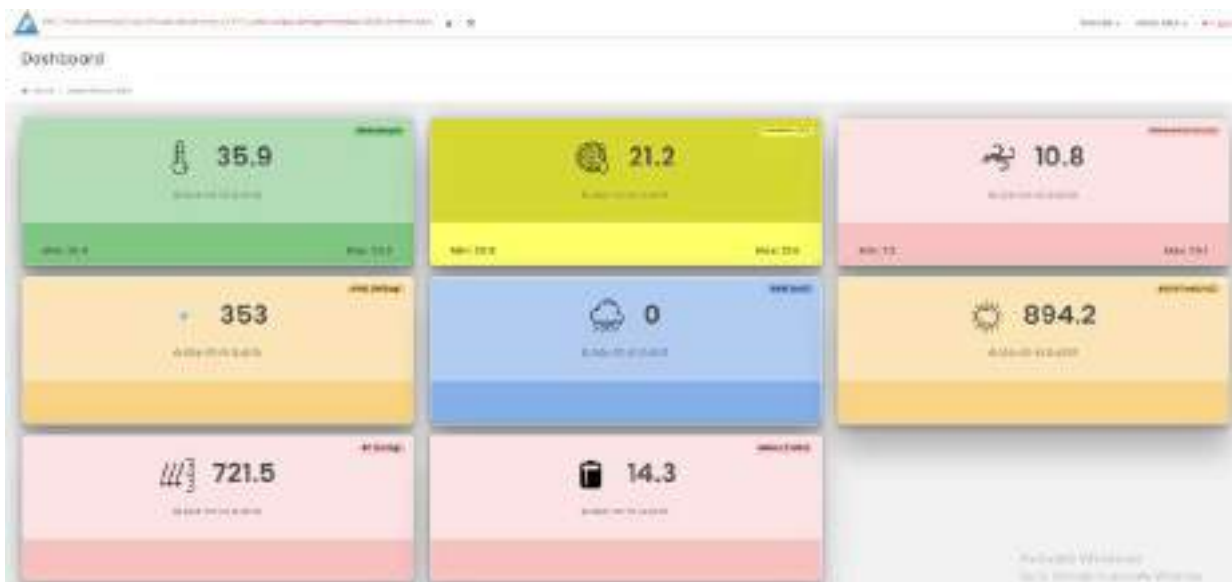
Sl No	Time	AAQMS_1-PM10 - (ug/m3) Raw	AAQMS_1-PM2.5 - (ug/m3) Raw	AAQMS_1-SO2 - (ug/m3) Raw	AAQMS_1-NOx - (ug/m3) Raw
180	2024-03-28	0.00	23.44	13.26	24.32
181	2024-03-29	0.00	28.00	13.35	23.98
182	2024-03-30	0.00	29.02	12.20	29.17
183	2024-03-31	0.00	15.84	10.62	31.39

Report Details: NTPCTS | 2024-05-03 12:33:22 | Custom Report

Navin Kumar

नवा- कुमार / NAVIN KUMAR
जि. सहायक (पर्यावरण प्रबन्धन) / JCM (ENVT. MGMT.)
संस्थान / NTPC / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

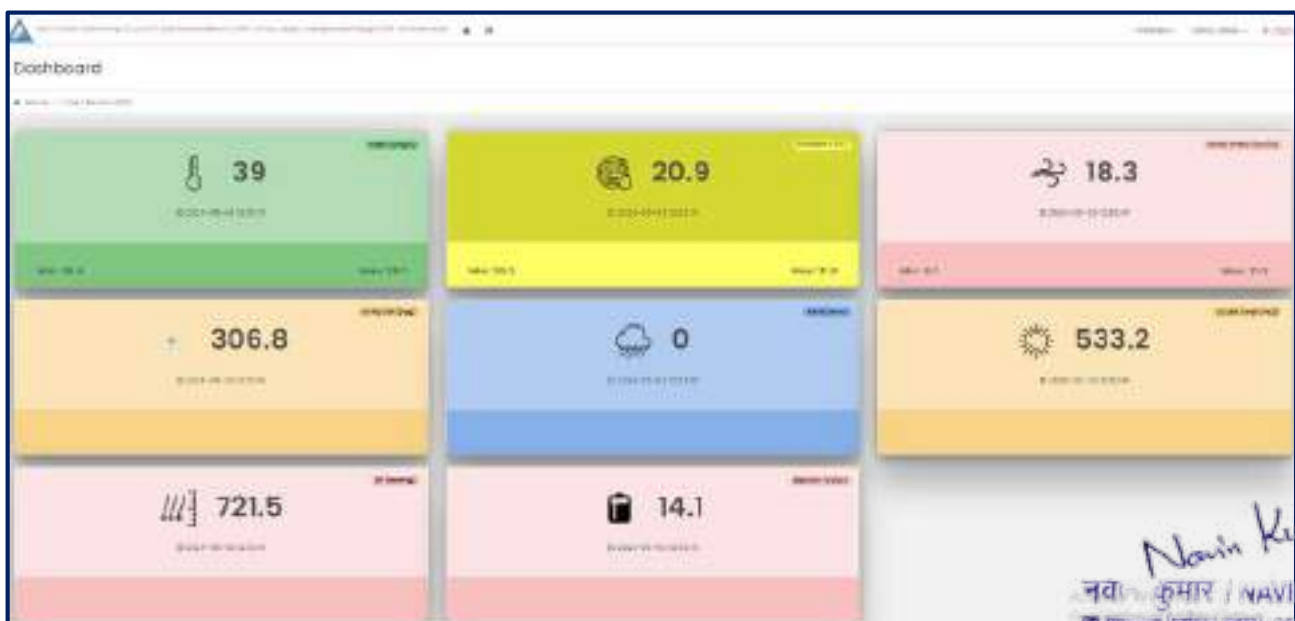
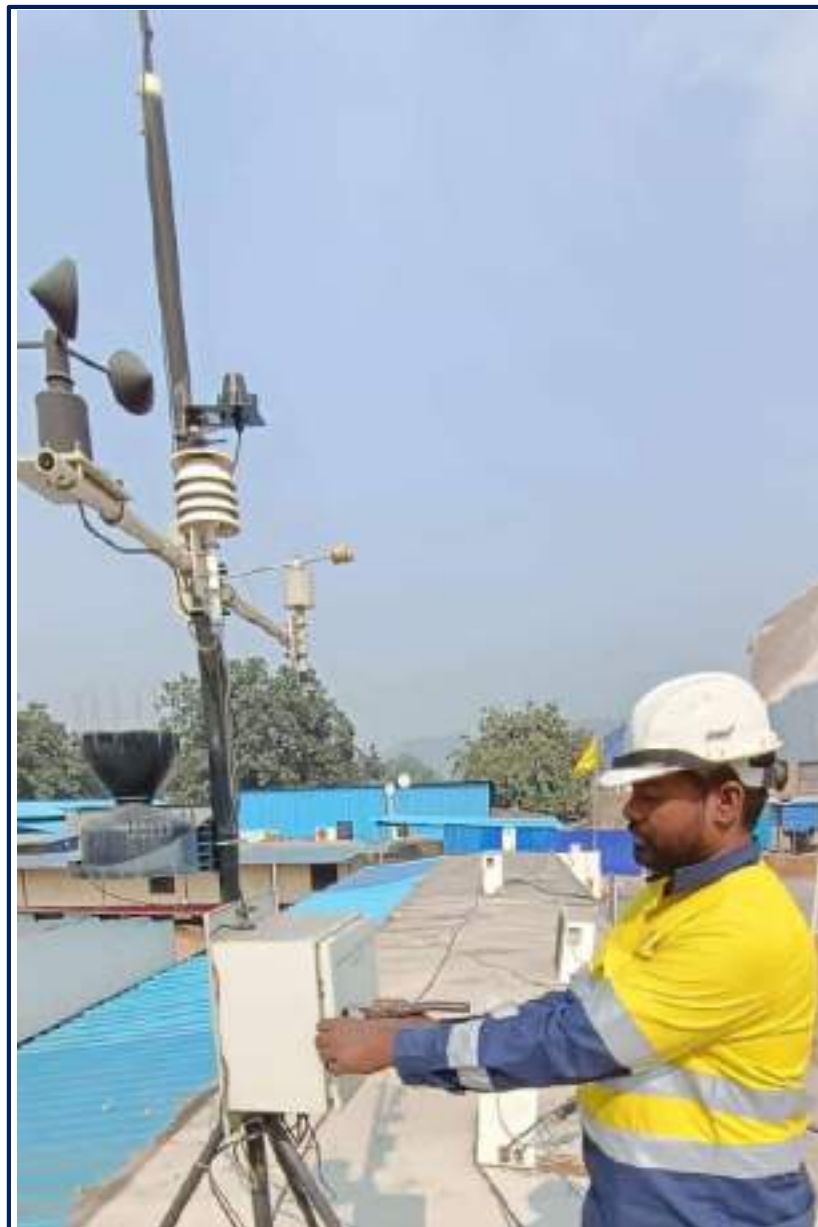
Automatic Meteorological station at Site office:



Navin Kumar

नवो- कुमार / NAVIN KUMAR
 का प्रमुख (सॉलर डीप) / OGM (ENVT. & GMT)
 एनडीएल / NDCs / NTPC Limited
 खदान खनन परियोजनाएँ (COA), MINING PROJECTS
 हजारीबाग / Hazaribag

Automatic Meteorological station at Mines Area:



Navin Kumar
नवीन कुमार / NAVIN KUMAR
ज्य. अभियंता (सहस्य संयोजक) / Jy. (ENR, WMT)
एनपीसी लिमिटेड / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag



NTPC Limited

(A Government of India Enterprise)

SSC - Coal Mining(Ranchi)

Sikri Site Office, P.O. Barkaga

Hazaribag - JHARKHAND

Jharkhand- 825311, India

Telephone No. : 06546-270808/267808 Fax No. : 06546270808

Service Purchase Order

PAN No. : AAACN0255D

CIN No. : L40101DL1975GOI007966

Purchase Order No. : 5500041554-131-1040 Date : 27.10.2022 (version : 2 Date : 25.07.2023)

To

Vendor Code : 1001049

Central Institute of Mining & Fuel Research
DIGWADIH CAMPUS , P.O. FRI. DHANBAD
DHANBAD
Jharkhand
India - 828108
Tel: 03262388361
Fax: 03262381113
E-Mail : amalenducmri@yahoo.com

Subject: : Appointment of Engineering consultant for availing consultancy services for preparation of Feasibility report, Detailed project report for Installation of Solar panel on OB dump of Pakribarwadih Coal mine

Ver-1 : Provisional time extension up to 31.03.2023 without prejudice to right to levy LD.

Ver-2 : final time extension up to 31.05.2023 without LD.

NIT NO. : 9900247575/131/1074 Dated 21.10.2022

Your Offer No. :

Your Reference :

Our Reference : Tender Reference: NTPC/SSC -Coal Mining (Ranchi)/9900247575
Tender ID 2022_NTPC_69512_1

Dear Sir,

This has reference to our above mentioned NIT, Your offer and subsequent discussions. We are pleased to accept your offer opened on 30.10.2022 and confirm having awarded on you the work of Appointment of Engineering consultant for availing consultancy services for preparation of Feasibility report, Detailed project report for Installation of Solar panel on OB dump of Pakribarwadih Coal mine Ver-1 : Provisional time extension up to 31.03.2023 without prejudice to right to levy LD. Ver-2 : final time extension up to 31.05.2023 without LD. of total value INR 3,150,000.00 (Rupee THIRTY-ONE LAKH FIFTY THOUSAND ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 28.10.2022 to 31.05.2023. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. DGM (Engg.) shall be EIC for this work.

This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date of this service purchase order. If no communication is received within 15 days of receipt of Purchase Order, it will be treated that order has been accepted in entirety.

We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,

Registered Office: NTPC Bhawan, Core-7, Scope Complex, Institutional Area, Lodhi Road, New Delhi-110003

Phone No. -(011)24360100, Fax No. -(011)24361018. Website: www.ntpc.co.in

Nash Kumar
NTPC Limited
SSC - Coal Mining (Ranchi)
DIGWADIH CAMPUS / P.O. FRI. DHANBAD
JHARKHAND - 828108
Tel: 03262388361
Fax: 03262381113
E-Mail : amalenducmri@yahoo.com



For & on behalf of NTPC Limited.

DGM (C&M)

Enclosures :

(Bill of Quantity)**Name of Work:**

Appointment of Engineering consultant for availing consultancy services for preparation of Feasibility report, Detailed project report for Installation of Solar panel on OB dump of Pakribarwadih Coal mine

Ver-1 : Provisional time extension up to 31.03.2023 without prejudice to right to levy LD.

Ver-2 : final time extension up to 31.05.2023 without LD.

SI No.	Code	Description	Unit	Quantity	Net Price	Amount	Long Text
--------	------	-------------	------	----------	-----------	--------	-----------

Delivery/Invoicing Address:

1040 Pakri Barwadih CMP
Sikri Site Office, P.O. Barkaga Hazaribag - JHARKHAND
Jharkhand
825311
India
06546-270808/267808
06546270808
Invoicing to be done on
GST No. : 20AAACN0255D1ZC

10		Consultancy for Installing Solar panel	AU	1.000	3,150,000.00	3,150,000.00	
----	--	--	----	-------	--------------	--------------	--

Tax: IN:Central GST-ND @ 9.00 % Extra

IN: StateGST-ND @ 9.00 %

10 .10		Consultancy Services	LOT	1	3,150,000.0000	3,150,000.00	
--------	--	----------------------	-----	---	----------------	--------------	--

TOTAL OF BOQ PART : 00010 INR 3150000.00

Amount 3150000.00

Other Charges 0.00

Net Amount on BOQ PART : 00010 INR 3150000.00

Net Total Amount INR 3,150,000.00

Less Rebate/Amount INR 0.00

Grand Total INR 3,150,000.00

INR THIRTY-ONE LAKH FIFTY THOUSAND ONLY

Terms & Conditions

Payment Terms

Payment Terms:

1. 25% payment shall be released on submission of Feasibility Report (FR) to NTPC and certification of EIC
2. 25% payment shall be released on approval of Feasibility Report (FR) by EIC
3. 25% payment shall be released on submission of Detailed Project Report (DPR) to NTPC and certification of EIC
4. 25% payment shall be released on approval of Detailed Project Report (DPR) by EIC

Payment Mode

EFT

Invoice to be raised on delivery/invoice address against the given PO line items.

Special Instruction

1. Total Contract Value: Rs. 31,50,000/- exclusive of GST.
2. Contract period: 03 Months.
3. GST shall be payable extra@18% as per GST rule.
4. Payment Terms:
 1. 25% payment shall be released on submission of Feasibility Report (FR) to NTPC and certification of EIC
 2. 25% payment shall be released on approval of Feasibility Report (FR) by EIC
 3. 25% payment shall be released on submission of Detailed Project Report (DPR) to NTPC and certification of EIC
 4. 25% payment shall be released on approval of Detailed Project Report (DPR) by EIC
5. Defect Liability Period: NIL
6. Security deposit (SD): NIL.
7. The Agency has to execute contract agreement with NTPC on appropriate value of non-judicial stamp paper within one month from the date of letter of award.
8. All other terms & conditions shall be as per tender document of NTPC.
9. TDS shall be deducted as per Income tax rule.
10. Engineer-In-Charge (EIC): DGM (Engg.)

Break up of Price (For Service Related Lines Only)

SI No.	Service Code	Description	Qty.	UOM	Rate	Premium	Discount	Addl Discount	Net Rate	Value
10.10		Consultancy Services	1	LOT	3,150,000.00	0.00	0.00	0.00	3,150,000.0000	3,150,000.00

Navin Kumar

DGM (C&M)

नवा- कुमार / NAVIN KUMAR
 का पदावधि (वर्ष) : DGM (ENT. & M.T.)
 भारतीय कोयला निगम / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

SCOPE OF WORK

00010 : Consultancy for Installing Solar panel

Brief scope of work

Information about site:

Pakri Barwadih Coal Block is located at North Karanpura Coalfields in Hazaribagh district of Jharkhand, with the following details:

Block- Barkagaon

District # Hazaribagh

Geographical location: 85°10' E to 85° 15' E & 23° 51' 30" N to 23° 55' 30" N

Survey is to be done in 40 Ha of Dump area (approx.), for installation of Solar Plant. Dump height is 90 m approx.

Feasibility study

To study for the installation of solar panel on OB dump of coal mine giving due consideration to the local geology, tropical climate, existing area drainage pattern and Mound stability including conditions that will arise during the monsoon period, as applicable.

Consultant shall prepare feasibility report bringing out clearly the viability of the project.

Bidder may carry out additional investigations and design studies at his own cost, if any, required to finalize the design.

Detailed Project Report (DPR) and scheme finalization

Bidder shall carry out topographical survey and geotechnical investigation to finalize the design.

Based on Geotechnical investigation, DPR should include design and drawings of foundation and structure of Solar Module, Buildings and other installations.

Bidder may carry out additional investigations and design studies at his own cost, if any, required to finalize the design.

Rainfall data may be obtained from Indian metrological department (IMD).

Proven principles to be used giving due consideration to the local geology, climate & existing area drainage pattern including conditions that will arise during the monsoon period, as applicable.

Slope stability of OB dump and area drainage study report available with NTPC which shall be shared with the successful bidder. Appropriate recommendation to the owner (i.e. NTPC) related to slope stability of OB dump and area drainage etc. to be suggested by the successful bidder in the reports.

Good aesthetic look shall be ensured considering that the OB mound is to be retained as a natural feature in the area during the life of plant (25 years). Provision for a planting area and plant nursery within the mound site shall be considered, if required.

Wherever applicable, appropriate drainage design to be provided for surface water runoff from the Solar panel area/ other installations of the Solar plant.

Design and drawings of all ancillary buildings like control and MCC/ switchgear/ switchyard buildings, administrative building, pump houses, safety centre, rest rooms with drinking water facilities, laboratory building, workshop etc., as applicable, shall be provided for regular servicing of plant & equipment working on the OB mound and for the welfare and control of the personnel involved, wherever applicable.

Preparation and submission of report incorporating above details to obtain approval from NTPC. This should include consultant's recommendation clearly bringing out tangible/intangible benefit to NTPC on the subject.

The DPR shall include BOQ, cost estimate, scheme, scope of work, technical specification and timeline of execution, potential for solar panel installations, maintenance, and operating cost of Solar Panels etc.

The successful bidder shall include Solar Technology Options, Solar irradiance and Energy Yield Prediction, Project Scheduling and Implementation, O&M philosophies, CDM/CER mechanism options, Social and Environment aspect, Statutory Clearances required, Power Evacuation Plan (SLD) based on industrial practice and their technical and economical comparisons in the FR and DPR and GOI Subsidies (if available)

In all cases, proven technology shall be proposed for implementation, with due study result.

Instruction to Bidders

Bidder is requested to carefully examine and understand the scope of works/ specifications and seek clarifications, if required, to ensure that they have understood the specifications. The Bidder's offer should not carry any sections like clarifications, interpretations and/or assumptions.

Before submitting his bid, the Bidder should inspect and examine the site and its surroundings and should satisfy himself as to the nature of the ground and subsoil, the quantities and nature of work, resources necessary for completion of the work and their availability, means of access to site and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his offer. No consequent extra claims on any misunderstanding or otherwise shall be allowed by the Owner.

Payment terms:

1. 25% payment shall be released on submission of Feasibility Report (FR) to NTPC and certification of EIC
2. 25% payment shall be released on approval of Feasibility Report (FR) by EIC
3. 25% payment shall be released on submission of Detailed Project Report (DPR) to NTPC and certification of EIC
4. 25% payment shall be released on approval of Detailed Project Report (DPR) by EIC

Security deposit and defect liability not applicable for this package.

Prepared By:
VEERA SURESH RABBA

List of Documents

Please note that below documents are needed to be provided along with Invoice.

S.No.	Document Description
1	Invoice

NTPC VENDOR PAYMENT PORTAL & PAYMENT PROCEDURE

1. For all the cases where payment documents are to be directly submitted to NTPC (excluding Payment through Bank cases), the Invoice and supporting document(s) as required in the Purchase Order have to be Digitally Signed with class II or III digital signature and uploaded in the **&gv_cocd&** Vendor Payment Portal <https://pradip.ntpc.co.in/VendorFinal/Login.jsp>.

In such cases, there will be no requirement of physical copy of invoice & documents except for Lorry Receipts (LRs)/ Delivery Challan, which are normally sent along with the material/ transporter. Bank Guarantees to be sent in original wherever applicable.

2. From 01.01.2020, NTPC will accept only digitally signed Invoice & supporting documents from Vendors for direct payment cases. Submission of documents in physical form shall not be accepted by NTPC unless otherwise asked for in the PO.

For such cases of physical submission, Vendors are required to send complete set of documents including invoice etc. addressed to the "Invoice Receipt Center" of the Delivery/ Invoicing Address as mentioned in the Purchase Order Annexure 1/ BOQ Sheet.

While submitting the Invoice/ Bills & related documents in physical form, Vendors are required to mention the following details on the top of the envelope:

- a. Invoice/Bill reference No.
- b. **NTPC PO No./ Package no.**
- c. **NTPC Vendor Code as per PO**

In addition to above, vendors are requested to mention their correspondence E-mail & Mobile No. in the Covering Letter, through which invoice processing related information/clarification request may be sent.

3. Vendors can track / monitor the status of payments from the Vendor payment portal. Help documents are available in the portal. Vendors are requested to make full use of the Vendor Payment Portal.

4. For payment cases through bank, all original documents are to be submitted in bank as per terms of PO.

Alternate Mode of Payment for Micro Small & Medium Enterprises (MSMEs):

Trade Receivables Discounting System (TReDS) is a regulatory framework put in place by the Reserve Bank of India under the Payment and Settlement Systems Act 2007 (PSS Act) to facilitate the financing of trade receivables (invoices) of MSMEs through invoice financing by multiple financiers.

The Reserve Bank of India has granted approval to Mynd Solutions Pvt Limited, A.TREDS Ltd and Receivables Exchange of India Ltd (RXIL) to set up and operate TReDS platforms. The Respective TReDS platforms names of the above-mentioned entities are M1xchange, Invoicemart and TREDS.

Currently NTPC Limited is transacting with M1xchange and RXIL TReDS platforms. MSME Vendors may choose the TReDS platforms as an alternate payment mechanism.

For queries/ details, the vendor may directly contact M1xchange or RXIL at:-

M1XCHANGE:-

URL: <https://m1xchange.com>
Toll free No.: 1800-103-7261

RXIL:-

URL: <https://www.rxil.in/Home/Index>
Phone: 022-40771424, 40771426
Toll free No.: 1800 1038 311

Vendor must ensure the delivery of material and service before uploading invoices at TReDS portal for discounting. After uploading invoices on TReDS portal, vendor has to upload invoices on NTPC payment portal in case of Non-GeM contract and in case of GeM Contract invoices shall be uploaded on GeM portal, immediately. All relevant documents required for processing of payments as per P.O/Contract terms and conditions shall be made available by the Vendor along with the invoice.

Illumination Survey Report of October - 2023

Sl. No.	Placed to be Illuminated	Minimum Standard of illumination provided (Lux)	Machinery Deployed & Other details	Location's	Luminary Deployed	Illumination Survey as date on - 31/10/23
1.	Working placed of heavy machinery	15 H, 25 V	PC 3000/1 PC 3000/2 EX-470/133 EX-470/126 EX-2500/11 RE # 4 RE # 5	South East South middle WP, East bottom South East South middle South west	MLT tower 1 nos MLT tower 1 nos MLT tower 1 nos MLT tower 1 no MLT tower 1 no MLT tower 1 no MLT tower 1 no	16 H, 25 V 15 H, 26 V 17 H, 28 V 14 H, 23 V 15 H, 26 V 17 H, 28 V 16 H, 29 V
2.	Drilling Operation					
	in area where drilling	25 V	Drilling mach. (5 nos)	East 3rd bench.	10 KVA Dg Set	46 H
	in area where drilling hole exist	15 H	Drilling mach. (2 nos)	South bottom East 3rd bench South bottom.	MLT tower 10 KVA Dg Set MLT tower	38 H 13 H 12 H
3.	Placed where loading/unloading or transfer loading of dumper, transfer train include DR dump / coal stock yard	15 H, 15 V	Mid scale dumper Large scale dumper	Dump (1) 90 ML Dump (1) 30 & 60L	3 nos fixed pole and MLT tower (2 nos) Portable light and MLT tower (2 nos)	15 H, 24 V 16 H, 25 V
4.	Operator's Cabin of machine of machinery	50 H	Sany - 2 EX 2500/11	operator cabine Operator cabine	Cabine light (LED) Cabine light (LED)	60 H 62 H
5.	Haul road for trucks Dumper	10 H	Large scale Dumper Mid scale dumper	South side to dump (1) (60L) West side to dump (1) (90 ML)	24 portable lights MLT, 9m fixed pole	12 H 10 H

02/11/2023

02/11/2023

02/11/2023

Illumination Survey Report of October 2023

Sl. No.	Placed to be Illuminated	Minimum Standard of illumination provided (LUX)	Machinery Deployed & Other details	Location's	Luminary Deployed	Illumination Survey on date on 21/10/23	
6.	Permanent path for use by power employees	10H	LMV	Unit junction to mine bottom (West side)	13m skid tower and 9m fixed pole.	9H	
7.	(a) Placed where crushing loading / unloading	40H	PSS # 1CP	} HOPPER	25m high mast tower structure light	52H	
	(b) Operational point	50H	ICP crusher		} BC-1	Structure light fixtures LED	56H
	(c) Other points	20H	ICP crusher		} Loading area.	Structure light fixtures	25H
8.	Pump Station	40H	750 KW / (1000 HP) 575 HP Electrical Pump	} Main Pump	9m fixed lighting pole.	54H	
					(40 kw a dg set)		
9.	(a) Electrical Sub-station	100H, 50V	Switch yard & VCB control room.	} 3 MVA sub-station at old workshop.	15 m fixed tower and chad light with Battery Backup Power	108H, 64V	
	(b) Other placed for operation of electric apparatus	20H, 20V	125 kVA DG Station & 100 kVA Transformer		} old workshop area.	13 m fixed tower.	24H, 32V


[Signature]
21/11/2023

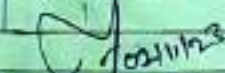
[Signature]
Alates

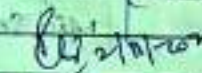
[Signature]
Gai

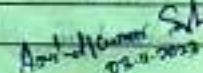
Illumination Survey Report of October 7, 2023.

Sl. No.	Places to be Illuminated	Minimum Standard of illumination provided (Lux)	Machinery Deployed & other details	Location's	Luminary Deployed	Illumination Survey as date on 31/10/23
10.	First-aid station	50H	First-aid center	Near HEMM Assembling yard	Cabine light and fixed tower light.	55 H
11.	Rest-shelter	50H	Rest shelter Rest shelter Rest shelter	De-watering pump 60L pump (C) In pit (Diesel) filling area.	40KVA DG set/ MLT tower 40 KVA DG set	35 H 30 H 32 H
12.	Workshop area	100H, 50V	HEMM main- tenance yard Mid scale maintenance yard.	Workshop. (South side) Near workshop. (South west)	16M fixed tower & 9m fixed pole light. 25M high mast tower & shed light.	120H, 62V 105H, 53V
13.	Parking area	50H	Large scale dumpers Mid scale dumpers	Parking yard. near dump(s) Parking yard (in sit area)	25m high mast tower. 40KVA DG	52 H 50 H
14.	General working area as determined by manager in written	10H	Pit office mine control room.	West side West side Battery backup (near)	25M high mast tower 16M high mast tower.	15H 28H


 Md. Sakib Ansari
 Plc. Supervisor
 (NTPC)


 Pseudop Kr. Dayal
 Colliery Engg.
 (NTPC)


 Rajendra Prasad
 Safety Officer
 (NTPC)


 Anand Kr. Singh
 Mine Manager
 (NTPC)

Illumination Survey of Western Quarry

Month of November - 2023

Sl. No.	Places to be Illuminated	Minimum Standard of illumination provided (Lux)	Machinery Deployed & other details	Location's	Luminary Deployed	Illumination Survey as date on 29/11/23
1.	Working place of heavy machinery	15H, 25V	PC 3500/1	South middle	10KVA DG skid pole	H-12, V-23
			RS # 3	South middle	10KVA DG skid pole	H-18, V-28
			RL # 5	South middle	MLT tower	H-13, V-22
			PC 3500/3	South middle	MLT tower	H-15, V-24
			RB #3#D(L)	East side	MLT tower	H-12, V-20
			Sony-01	North East	MLT tower	H-20, V-30
			470(127)	North East	MLT tower	H-10, V-18
loader-5	East bottom	10KVA Skid pole	H-30, V-50			
2.	Drilling Operation	25V	Drilling machine	South bottom	MLT tower	35V
			Drilling machine	West bottom	Skid pole	33V
			Drilling machine	South bottom	MLT tower	13H
			Drilling machine	West bottom	Skid pole	12H
3.	Places where loading unloading or transfer loading of dumpers, transfer trains include DB dump / coal stock yard	15H, 15V	Mid Scale	In Dump (RL-4to)	10 KVA DG skid pole	16H, 32V
			Large Scale	Dump (W) 60L	16M skid tower MLT tower	15H, 28V
4.	Operator's cabin of machine of machinery	50H	RL55-34	Cabine light	LED fixtures	60H
			Sony # 3	Cabine light	LED fixtures	56H
5.	Haul road for trucks, Dumpers	10H	Large Scale	South East	Street light & short pole	H-10
			Mid Scale	West side	Street light	H-7

[Signature]
20/11/23

[Signature]
20/11/23

[Signature]
20/11/23

[Signature]
20/11/23

Illumination Survey of Western Quarry

Month of November - 2023

Sr No.	Place to be Illuminated	Minimum Standard of illumination (Lux)	Machinery Deployed & Other details	Location's	Luminaries Deployed	Illumination Survey as date on-29/11/23
6.	Permanent path for use by human employees	10H	LMV Road.	Gate No. 4 to mine pit office	Street light	08 H
7.	Coal handling plant					
	(a) Place where crushing loading/unloading	40H	PSS # 1 & 2	Hopper	25M high mast tower	46 H
	(b) Operational plant	50H	PSS # 1 & 2	crushing point	structure lights fixture	58 H
	(c) Other point	20H	PSS # 1 & 2	belt conveyor	LED fixtures along the conveyors	23 H
8.	Pump Station	40H	450 KW (Ele.) Electrical	Main Sump (NW)	9m fixed pole LED fixtures	52 H
			575 KW (Ele.) Electrical	Main Sump (NW)		53 H
9.	(a) Electrical Sub-Station	100H, 50V	3 MVA S/S 5 MVA S/S	near West pond (West side) Switchyard	fixed pole (9m) fixed pole (9m) and Battery backup Power	H-68, V-80
	(b) Other placed for operation of electric apparatus	50H, 90V	8- House # 1	West side	13mtr tower light and Cabine light	H-15, V-22

[Signature]
30/11/23

[Signature]
30/11/23

[Signature]

[Signature]
Amit

Illumination Survey of Western Quarry

Month of November - 2023

Sl. No.	Place to be Illuminated	Minimum Standard of Illumination provided (Lux)	Machinery Deployed & other details	Location's	Luminary Deployed	Illumination Survey as date on 29/11/23
10.	First-aid station	50H	First-aid centre	Near HEMM assembly yard	Cabin light & fixed tower light	60H
11.	Rest-shelter	30H	Rest shelter	South bottom	MLT tower	32H
			Rest shelter	Main Sump (NW)	Fixed pole	28H
			Rest shelter	Dump (C) 60L	16M fixed skid tower	35H
12.	Workshop Area	100H, 50V	Tippex Section	Mid scale workshop	Structure light	H-72, V-108
			Welding Section	HEMM workshop	structure light	H-60, V-40
			Dorex section	HEMM workshop	Structure light	H-68, V-38
13.	Parking Area	50H	Large scale dumpers	South East side Near Dump - (C)	25 M high mast tower.	46H
			Mid scale dumpers	In Pit Area	13M skid tower.	42H
14.	General working areas as determined by manager in written	10H	Mine Pit office	East side.	25M fixed high mast	15H
			Control room	West side	16m fixed tower	20H

[Signature]
20/11/23
Md. Sabir Ansari
Sd. Supervisor
(NTPC)

[Signature]
20/11/23
Kundeep Kumar Doyal
Sd. Mining Engr.
(NTPC)

[Signature]
20/11/23
Ajayendra Prasad
Sd. Safety Officer
(NTPC)

[Signature]
20/11/23
BR Singh
Sd. Colliery Engineer
(NTPC)

[Signature]
20/11/23
Anand Kumar Singh
Sd. Mining Manager
(NTPC)

Illumination Survey of Western Quarry

Month of December - 2023

Sr. No.	Places to be Illuminated	Minimum Standard of illumination provided (LUX)	Machinery Deployed & other details	Location's	Luminary Deployed	Illumination Survey as date on - 29/12/2023
1.	working place of heavy machinery	15 H, 25 V	RS # 2	Wfs area	MLT	15 H, 25 V
			RH # 340/1	East side	10 KVA Dg Set	14.5 H, 23 V
			EX-250/11	West side	MLT	15 H, 27 V
			EX-41926	South West	10 KVA Dg Set	16 H, 30 V
			RS # 5	South middle	South middle MLT	13 H, 22 V
			Sany No-3	East middle	10 KVA Dg Set	14 H, 25 V
			Sany No-6	East middle	10 KVA Dg Set	14 H, 25 V
2.	Drilling operation	25 V	Drilling mach.	East side	MLT tower	36 V
			Drilling mach.	South side	10 KVA Dg Set	40 V
			Drilling mach.	East side	MLT tower	40 V 12 H
			Drilling mach.	South side	10 KVA Dg Set	16 H
3.	Places where loading unloading or transfer loading of dumpers, transfer train includes OB dump/ coal stock yard	15 H, 15 V	Mid Scale Dumpers	Coal stock yard	25 M high mast	15 H, 20 V
			Large Scale Dumper	Dump-6) 75L	33 M skid tower	16 H, 23 V
4.	Operator's Cabin of machine of machinery	50 H	Sany # 3	Middle button	LED Cabine light	56 H
			Dozer no-7	Middle button	LED Cabine light	52 H
5.	Haul road for trucks, Dumpers	10 H	Large scale dumper	South side to dump-6)	2 M & 9 M street light	12 H
			Mid Scale dumper	East side to PS crusher	MLT & 25 M high mast	10 H

[Signature]
30/12/23

[Signature]
30/12/23

[Signature]

[Signature]

Illumination Survey of Western Quay

Month of December - 2023

Sl. No.	Places to be Illuminated	Minimum Standard of Illumination provided (Lux)	Machinery Deployed & other details	Locations	Luminaries Deployed	Illumination Survey as date 01-29/12/23
6.	Permanent path for use person, employees	10H	LMV Road	Recreation Gate to - Mine office	9m fixed light	8H
7.	(a) Placed where Crushing loading / unloading	40H	PSS # 1 & 2 Hopper Area	P	25m high mast tower structure light fixtures	46H
	(b) Operational plant	50H	Crushing Point	PSS # 1 & 2		52H
	(c) Other point	30H	Loading Area Along the conveyors	PSS # 1 & 2		Structure light fixture	24H
8.	Pump Station	40H	750 kW Electrical Pump	Main Sump	9.11 m fixed lights	48H
			365 HP Diesel Pump	Mine bottom, filling points, Wash Ponds,	LED fixtures	38H
9.	(a) Electrical Sub-Station	100H, 50V	Switch yard & Control Room	2 MVA sub-station, Wash junction	fixed lighting pole and Battery backup power	112H, 59H
	(b) Other placed for operation of electric apparatus	30H, 20V	500 KVA DG set,	2 MVA sub-station Wash-junction	9m fixed lighting pole	22H, 36V

[Signature]
30/12/23

[Signature]
30/12/23

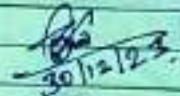
[Signature]

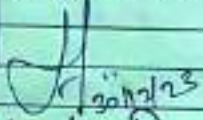
[Signature]

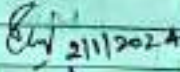
Illumination Survey of Western Quarry

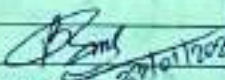
Month of December - 2023

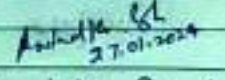
Sl. No.	Place to be Illuminated	Minimum Standard of illumination provided (LUX)	Machinery Deployed & other details	Locations	Luminary Deployed	Illumination Survey as date on - 29/12/23
10.	First-aid station	50 H	First Aid Center	South side (near urub pond)	Cabine light	60 H
11.	Rest-Shelter	30 H	Rest-shelter	Dump-CC	13 M skid tower	30 H
			Rest-shelter	EX-2500/11	MLT tower	22 H
			Rest-shelter	Pump Station	Fixed lighting pole	31 H
12.	Workshop Area	100 H, 50V	Drizzes Section	Mid scale workshop	Shed light	118 H, 56 H
			Welding Section	Mid scale workshop	Shed light	100 H, 60V
			Dumpers Section - HEMM	Workshop	High mast tower & shed light	80 H, 55 V
13.	Parking Area	50 H	Mid scale tipper	MINE Bottom Area,	13 m skid tower & 9 m skid tower	51 H
			Large scale dumper	South East near dump CC	25 m high mast tower	55 H
14.	General working area as determined by manager in written	10 H	Mine pit office,	West side	25 m high mast tower	20 H
			Control Room,	North West side	16 m steelcum tower battery backup tower	22 H


 30/12/23
 Md. Sakin Ansari
 Plt. Supervisor
 (NTPC)


 30/12/23
 Pradeep Kumar Doyal
 Plt. Engr.
 (NTPC)


 21/12/23
 Rajendra Prasad
 Safety Officer
 (NTPC)


 27/12/2023
 B.R. Singh
 Colliery Engr.
 (NTPC)


 27.01.2024
 Anand Kumar Singh
 Mines Manager
 (NTPC)

Illumination Survey of Western Quarry

Month of January - 2024

Sl. No.	Places to be Illuminated	Minimum Standard of illumination provided (LUX)	Machinery deployed & other details	Locations	Luminarey Deployed	Illumination Survey as date on 29/01/2024
1.	Working places of heavy machinery	15 H, 25 V	DS# 1	South Middle	MLT with 04 bulbs	15 H, 25 V
			RH-340(L)	East	MLT with 2 bulb	14 H, 26 V
			EX-870(28)	East bottom	MLT with 3 bulb	16 H, 32 V
			EX-470(24)	East Middle	MLT with 4 bulb	16 H, 37 V
			EX-470(35)	East Middle	MLT with 4 bulb	16 H, 37 V
		15 H, 25 V	EX 470 (29)	North Middle	MLT with 4 bulb	14 H, 25 V
2.	Drilling Operation	25 V	Drilling mach.	Mine Bottom	10 KVA Dg with 6 fixtures	34 V
			Drilling mach.	South west (3rd Bench)	MLT with 3 nos fixtures.	40 V
			Drilling mach.	Mine Bottom	10 KVA, Dg, with 6 fixtures.	12 H
			Drilling mach.	South west (3rd Bench)	MLT towers with 3 nos fixtures	16 H
3.	Places where loading, unloading or transfer loading of dumpers, transfer trains including OB dumps/ coal stock yard	15 H, 25 V	Mid Scale Dumpers	In pit dump (RL-425)	10 KVA Dg with 5 fixtures	16 H, 38 V
			Large Scale Dumpers	Dump-(C) 60 L & 85 L	13 M Spid towers & MLT	14 H, 27 V
4.	Operator's Cabin of machine of machinery	50 H	EX 470 (132)	Cabin light	LED fixture	49 H
			Grader - Sany (4)	Cabin light	LED fixture	54 H
5.	Haul road for trucks, Dumpers	10 H	Large Scale	HR-7	Street light with LED fixture	12 H
			Topical Scale	Wrest junction to main dump	Street light	10 H

[Signature]
30/01/24

[Signature]
30/01/24

[Signature]
[Signature]

Amr D

Illumination Survey of Western Quarry

Month of January - 2024

Sl. No.	Placed to be Illuminated	Minimum Standard of illumination provided (Lux)	Machinery Deployed & other details	Location	Luminaire Deployed	Illumination Sustained on date 29/01/24
6.	Permanent path for use person, employees	10H	LMV	Deewari to Pit office	fixed lighting pole	8 H
7.	a) Placed where crushing loading / unloading	40H	ICP Crusher	Hopper Area,	3m fixed lighting pole	43 H
	b) Operational plant	50H	ICP Crusher	Crushing Area,	structure light fixtures	54 H
	c) Other point	20H	ICP Crusher	Loading Area	Structure light fixtures	23 H
8.	Pump Station	40H	Main pump (Diesel pump)	Mine bottom	10 KVA Dg set with 5 Nos lighting fixtures	48 H
			22 kW Eled. pump	Section # 4 Top soil	MLT Tower	42 H
9.	a) Electrical Sub-Station	100H, 50V	2 MVA S/S	Near HEMM workshop	fixed light pole	115 H, 85 V
			5 MVA S/S	West side	fixed light pole	125 H, 95 V
	b) Other placed for operation of electric apparatus	30H, 20V	100 KVA Dg set	old workshop	16m fixed tower,	22H, 28V

[Signature]
30/01/24

[Signature]
30.01.24

[Signature]

[Signature]

[Signature]

Illumination Survey of Western Quarry

Month of January - 2024

S. No.	Places to be Illuminated	Minimum Standard of illumination provided (LUX)	Machinery Deployed & other details	Locations	Luminary Deployed	Illumination Survey as date on 29/01/2024
10.	First-aid Station	50H	First-aid Centre	South side near dump (C)	Cabine light, LED fixtures	60 H
11.	Rest-Shelter	30H	Rest Shelter	Pit Sump	10 KVA DG set with 5 Nos fixtures	38 H
			Rest Shelter	Inpit Dump - 425 PL	20 KVA DG set	35 H
			Rest Shelter	Inpit parking Yard	25 KVA DG set	32 H
12.	Workshop Area	100H, 60V	Supporting Equipment maint ⁿ	New workshop	shed light & 25m high mast light.	110H, 60V
			Excavator Section	HEMM workshop	16m fixed towers with 6 nos fixtures	100H, 55V
13.	Parking Yard Area	50H	HEMM Parking yard.	South side near dump (C)	25M high mast towers	48 H
			mid scale parking yard.	In pit dump (mine bottom)	25 KVA with 13m skid towers,	52 H
14.	General working area as determined by manager in written	10H	Pit office	North West	25m high mast towers	18 H
			Mine Control room	West side	16 m student lights.	22 H

30/01/24
Md. Sakin Ansari
Plt. Supervisor
(NTPC)

30.01.24
Pradeep Kr. Dayal
Plt. Engr.
(NTPC)

Ajay Pratap
Ajayendra Prasad
Safety Officer
(NTPC)

B.R. Singh
Collony Engr.
(NTPC)

Anil Kumar Singh
30.01.24
Ajayendra Singh
Mine Manager
(NTPC)

Illumination Survey of Western Quarry

Month of February - 2024

Sl. No.	Placed to be Illuminated	Minimum Standard of illumination provided (LUX)	Machinery Deployed & Other details	Locations	Luminary Deployed	Illumination Survey as date on 28/02/2024
1.	Working place of heavy machinery	15H, 25V	RS # 3 Sany - 870/15 EX - 870/14 EX - 470/2527 Surface miner Sany - 16 EX - 470/132	South middle North West East middle Mine Bottom Mine Bottom East middle East middle	MLT tower 9m skid tower 10 kv4 DG set MLT tower MLT tower 10 kv4 DG set MLT tower	15H, 32V 20H, 35V 18H, 28V 16H, 26V 15H, 26V 17H, 28V 14H, 25V
2.	Drilling Operation					
	a) Area where drilling is going work	25V	Drilling rig	North west side	10 kv4 DG set	40V
	b) Area where drilling hole exist	15H	Drilling machine Drilling machine Drilling machine	South bottom South bottom North West side	5 kv4 MLT 5 kv4 MLT 10 kv4 DG set	32V 32V 16H
3.	Placed where loading, unloading or transfer loading of dumpers, trucks trains including DB dump / Coal Stock yard	15H, 15V	Mid Scale Large Scale	Dump (C) (90 m) Dump (C) (160 m)	13 m skid tower and MLT tower 13 m skid tower and MLT tower	16H, 22V 15H, 22V
4.	Operator's Cabin of machine of machinery	5DH	Fire tender Maintenance van	Cabine light Cabine light	LED fixtures LED fixtures	56H 52H
5.	Haul road for trucks Dumpers	10H	Large Scale Mid Scale	South bottom to Dump (C) West side to dump (C)	Street Light (Short Pole) MLT and 25m high mast	12H 10H

[Signature]
E. Super
25/02/24

[Signature]
20/02/24

[Signature]
[Signature]
[Signature]

Illumination Survey of Western Quarry

Month of February - 2024

Sl. No.	Place to be Illuminated	Minimum Standard of illumination provided (lux)	Machinery Deployed & other details	Locations	Luminary Deployed	Illumination Survey as date on 28/02/2024
6.	Permanent path for use person, employees	10H	LMV Road	Service gate to mine pit office	fixed street lights	<u>8 H</u>
7.	Coal handling plant (a) Placed where Crushing loading/unloading (b) Operational plant	40H	Hopper Area	ICP crusher	fixed lighting pole	45 H
		50H	Coal Sizer	ICP crusher	structure lights	53 H
		80H	Loading Area	ICP crusher	Structure lights	28 H
8.	Pump Station	40H	Pump station filling point	mine bottom Sump	10 KVAD G. lat. and 9M oxid tower lat.	54 H
9.	(a) Electrical Sub-Station	100H, 50V	Switch yard	5 mva sub-station	fixed lighting tower	135 H, 86V
	(b) Other placed for operation of electric apparatus	30H, 90V	Control room	5 mva sub-station	shed light (LED fixture)	28 H, 22V

[Signature]
28/02/24
Ele. Supervisor

[Signature]
28/02/24

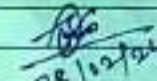
[Signature]
28/02/24

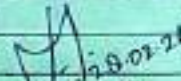
[Signature]
28/02/24

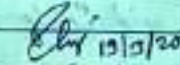
Illumination Survey of Western Quarry


Month of February - 2024

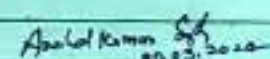
Sl. No.	Place to be Illuminated	Minimum Standard of illumination provided (Lux)	Machinery Deployed & other details	Location	Luminary Deployed	Illumination Survey as date on 28/02/2024
10.	First-aid Station	50H	First-aid Center	South side near dump - (C)	Cabine light	60 H
11.	Rest - Shelter	50H	Rest shelter	Demolishing pump	10 kva Dg set	33 H
			Rest shelter	Near RS-H 5,	MLT tower	30 H
12.	Workshop Area	100H, 50V	HEMM Maintenance yard	New Workshop	25M high mast & shed light.	125 H, 75V
			Mid scale Maintenance yard	New Workshop	16M fixed tower and shed light.	108 H, 65V
13.	Parking Yard Area	50H	HEMM large (Scale dumper)	South East side	25M high mast tower	42 H
			Mid scale dumper	In pit Dump Area.	13M skid tower.	45 H
14.	General working area as determined by manager in written	10H	Pik office	North west	25M high Mast tower	18 H
			Mine Control room	West side	16M Stadium tower.	22 H


 28/02/24
 Md. Sakir Ansari
 Sr. Supervisor
 (NTPC)


 28/02/24
 Pradeep Kumar Roy
 Sr. Engg.
 (NTPC)


 15/02/2024
 Jayendra Kumar
 Safety Officer
 (NTPC)


 B. D. Singh
 Colliery Engg.
 (NTPC)


 20.02.2024
 Anand Kumar Singh
 Mines Manager
 (NTPC)

Illumination Survey Report month of April - 2024

SLNO	Places to be Illuminated	Minimum Standard of Illumination provided (Lux)	Machinery Deployed & other Details
1.	Working place of Heavy Machine	15 H, 25V	RS# 2 RS# 3 EX-470/29 EX-470/129 EX-470/25 PL-3000/2
2.	Drilling operation		
①	Area where drilling rig area work	25V	Drilling machine
②	Area where drilling hole exist	15H	Drilling Machine
3.	Place where loading, unloading or transposing of dumpers, trucks, trains, including DB dump Coal stock yards	15H, 15V	Mid Scale, Large Scale
4.	Operator's Cabin of Machine of Machinery	50H	Rezzes
5.	Haul road for trucks & Dumpers,	10H	Valve flapper Large Scale Mid Scale

[Signature]
18/04/24

[Signature]
18/04/24
(Pradeep Rajal)

Location	Luminary Deployed	Illumination Survey as on date 16/04/2024
South middle	MLT tower	15H, 26V
South middle	MLT tower	16H, 27V
Mine Bottom	10KVA DG Set	14H, 25V
Mine Bottom - North	10KVA DG Set	16H, 28V
North	MLT tower	15H, 25.5V
North Top soil	13 M skid tower	16 H, 24V
Mine Bottom	10KVA DG Set	42V
East - 2nd Bench	MLT tower	40V
Mine Bottom	10KVA DG Set	13H
East - 2nd Bench	MLT tower	13H
Dump - (C) 90L	13 M skid tower, ① MLT tower	16H, 24V
Dump - (U) 30L	13 M skid tower	15H, 22V
Cabin light	mine pit Area	54 H
Cabin light	PSS Area	58 H
South east to dumper	2M Rotable Light	10 H
West side to dump - 10	9m skid fixed pole	09 H

[Signature]

Illumination Survey Report Month of April - 2024

Sl. No.	Places to be Illuminated	Minimum standard of illumination Provided (Lux)	Machinery Deployed & Other Details	Location	Luminaire Deployed	Illumination Survey as on date - 16/04/2024
6.	Permanent batt for use person employees.	10 H	LMV Road	Pit office to Urub gate.	9m fixed pole	8 H
7.	Coal handling plant					
Ⓐ	place where crushing loading/unloading	40 H	Hopper Area.	ICP Crushers	structure lights	45 H
Ⓑ	Operational plant	50 H	Coal size plants	ICP Crushers	16m high mast tower.	54 H
Ⓒ	Other point	20 H	Loading Area	ICP Crushers	structure lights	24 H
8.	ump station	40 H	Pump station filling pits	Mine bottom Sump	10kVA Dq set	40 H
9.	Ⓐ Electrical sub-station	100 H, 50 V	Switch yard	2 MVA Sub-station	9m fixed lighting pole.	105 H, 50 V
	Ⓑ Other places for operation of electrical apparatus.	20 H, 20 V	Control room.	2 MVA Sub-station	LED fixtures & Battery backup power	28 H, 30 V

18/04/24

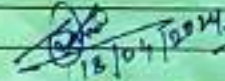
18/04/24

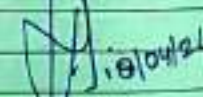
18/04/24

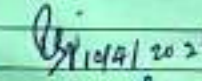
Illumination Survey Report Month of April

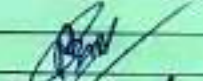
-2024, As Per SUB-Regulation (2) of Reg-173 of CMR-2017

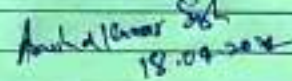
SL. NO	Place to be Illuminated	Minimum standard of illumination provided (Lux)	Machinery Deployed & other details	Location	Luminaries Deployed	Illumination Survey as date on - 16/04/2024
10.	First-Aid station	50 H	First Aid center	South East side	Cabin light	52 H
11.	Rest-shelter	30 H	Rest shelter	De-watering pump.	10 KVA DG set	32 H
			Rest shelter	Pump (C) 30L.	MLT tower.	28 H
			Rest shelter	Diesel filling area.	10 KVA DG set	36 H
12.	Workshop area.	100 H, 50 V	HEMM Maintenance yard.	New workshop	25 M high mast	112 H, 85 V
			Mid Scale maintenance yard.	New workshop	16 M fixed tower	120 H, 25 V
13.	Laundering yard Area.	50 H	HEMM large Scale slumper	South East side	25 M high high mast	46 H
			Mid Scale slumper, pit attic	In pit Area.	10 KVA DG set	50 H
14.	General working area as determined by Manager in written.	10 H	Mine Control room.	North west	25 M high high mast	15 H
				West side	16 M high steckhorn light	20 H


 16/04/2024
 Md. Sakshi Anwar
 Ele. Supervisor
 (NTPC)


 16/04/24
 Pradeep Rajal
 Ele. Safety officer
 (NTPC)


 16/04/2024
 Rajendra Prasad
 Safety officer
 (NTPC)


 B.R. Singh
 Colliery Engineer
 (NTPC)


 18.04.2024
 Anand Kumar Singh
 Mine Manager,
 (NTPC)



NTPC Limited

(A Government of India Enterprise)

SSC - Coal Mining(Ranchi) Kerandari CMP

Sikri Site Office, P.O. Barkaga

Hazaribag - JHARKHAND

Jharkhand- 825311, India

Telephone No. : 06546-270808/267808 Fax No. : 06546270808

Service Purchase Order

PAN No. : AAACN0255D

CIN No. : L40101DL1975GOI007966

Purchase Order No. : 4600073415-108-1040 **Date :** 09.02.2023 **(version : 0)**

To

GAGAN BHARTI

SHARMA COLONY, PHUSHRO, P.S- BERMO

DIST.-BOKARO, STATE- JHARKHAND

BOKARO

BOKARO

Jharkhand

India - 829144

Tel: 6378567804

E-Mail : gagan.mix@gmail.com

Vendor Code : 1202867 (SME Vendor)

Subject: : Job Contract for Plantation and Maintenance of Tree/Plant/Shrubs at R & R colony for 1 year.

NIT NO. : Dated

Your Offer No. :

Your Reference :

Our Reference : GeM Bid No.: GEM/2022/B/2656139,
GEM Contract No.: GEMC-511687766889983, Dated: 06-Feb-2023

Dear Sir,

This has reference to our above mentioned NIT, Your offer and subsequent discussions. We are pleased to accept your offer opened on and confirm having awarded on you the work of Job Contract for Plantation and Maintenance of Tree/Plant/Shrubs at R & R colony for 1 year. of total value INR 1,864,406.58 (Rupee EIGHTEEN LAKH SIXTY-FOUR THOUSAND FOUR HUNDRED SIX POINT FIFTY-EIGHT ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 16.02.2023 to 15.02.2024. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. BIRENDRA KUMAR AGM (ENVT. MGT.) shall be EIC for this work.

This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date of this service purchase order. If no communication is received within 15 days of receipt of Purchase Order, it will be treated that order has been accepted in entirety.

We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,

For & on behalf of NTPC Limited.

DGM (C&M)

Enclosures :

GEM Contract No.: GEMC-511687766889983, Dated: 06-Feb-2023

Registered Office: NTPC Bhawan, Core-7, Scope Complex, Institutional Area, Lodhi Road, New Delhi-110003

Phone No. -(011)24360100, Fax No. -(011)24361018. Website: www.ntpc.co.in

Navin Kumar
नवा- कुमार / NAVIN KUMAR
जुन कर्मचारी (निर्माण प्रभाग) / JGM (ENVT. MGT.)
NTPC Limited
निर्माण प्रभाग (COAL MINING PROJECTS)
हजारीबाग / Hazaribag

(Bill of Quantity)**Name of Work:**

Job Contract for Plantation and Maintenance of Tree/Plant/Shrubs at R & R colony for 1 year.

SI No.	Code	Description	Unit	Quantity	Net Price	Amount	Long Text
--------	------	-------------	------	----------	-----------	--------	-----------

Delivery/Invoicing Address:

1040 Pakri Barwadih, Chat Bariatu & Kerandari CMP
Sikri Site Office, P.O. Barkaga Hazaribag - JHARKHAND
Jharkhand
825311
India
06546-270808/267808
06546270808
Invoicing to be done on
GST No. : 20AAACN0255D1ZC

10		Schedule Item	AU	1.000	41,182.93	41,182.93	
----	--	---------------	----	-------	-----------	-----------	--

Tax: IN:Central GST-ND @ 9.00 % **Extra**
IN: StateGST-ND @ 9.00 %

10 .10	CVDSR1802064	DSR-2018 Item:2.32	M2	11,600	3.5503	41,183.48	YES
--------	--------------	--------------------	----	--------	--------	-----------	-----

TOTAL OF BOQ PART : 00010 **INR 41182.93**

Amount **41182.93**
Other Charges **0.00**

Net Amount on BOQ PART : 00010 **INR 41182.93**

20		Non Schedule Item	AU	1.000	1,823,223.65	1,823,223.65	
----	--	-------------------	----	-------	--------------	--------------	--

Tax: IN:Central GST-ND @ 9.00 % **Extra**
IN: StateGST-ND @ 9.00 %

20 .10		NSI-01 Digging holes in ordinary soil	EA	3,000	26.6922	80,076.60	YES
20 .20		NSI-02 Planting of trees and shrubs	EA	3,000	14.5143	43,542.90	YES
20 .30		NSI-03 Maintenance of trees, shrubs	EA	49,836	21.4386	1,068,414.07	YES
20 .40		NSI-04 Supplying and stacking of well de	M3	50	736.8014	36,840.07	YES
20 .50		NSI-05 Supplying of Anti terminator	L	50	341.2420	17,062.10	YES
20 .60		NSI-06 Supplying of fertilizers DAP	KG	500	18.6780	9,339.00	YES
20 .70		NSI-07 Supply of fertilizer Uria etc	KG	500	5.3319	2,665.95	YES
20 .80		NSI-08 Supply and stacking of Mango	EA	500	97.8930	48,946.50	YES
20 .90		NSI-09 Supply and stacking of Guava	EA	500	84.8406	42,420.30	YES
20 .100		NSI-10 Supply and stacking of Sharifa	EA	400	97.8930	39,157.20	YES
20 .110		NSI-11 Supply and stacking of Jackfruit	EA	500	97.8930	48,946.50	YES
20 .120		NSI-12 Supply and stacking of Java plum	EA	200	91.3668	18,273.36	YES
20 .130		NSI-13 Supply and stacking of Bel plant	EA	200	91.3668	18,273.36	YES
20 .140		NSI-14 Supply and stacking of Mulberry	EA	200	97.8930	19,578.60	YES
20 .150		NSI-15 Supply and stacking of gooseberry	EA	100	84.8406	8,484.06	YES
20 .160		NSI-16 Supply and stacking of Lychee	EA	100	104.4192	10,441.92	YES
20 .170		NSI-17 Supply and stacking of Almonds	EA	100	130.5240	13,052.40	YES
20 .180		NSI-18 Supply and stacking of Lemon	EA	100	143.5764	14,357.64	YES
20 .190		NSI-19 Supply and stacking of oleander	EA	100	52.2096	5,220.96	YES

		p					
20 .200		NSI-20 Tree gaurd square (2.5ft x2.5ft)	EA	500	293.6790	146,839.50	YES
20 .210		NSI-21 Supply of Un-Skilled manpower	EA	310	423.5243	131,292.53	YES

TOTAL OF BOQ PART : 00020

INR 1823223.65

Amount**1823223.65**

Other Charges

0.00

Net Amount on BOQ PART : 00020

INR 1823223.65

Net Total Amount

INR 1,864,406.58

Less Rebate/Amount

INR 0.00

Grand Total

INR 1,864,406.58

INR EIGHTEEN LAKH SIXTY-FOUR THOUSAND FOUR HUNDRED SIX AND FIFTY-EIGHT PAISA ONLY

Terms & Conditions

Payment Terms

1. The payment shall be made on monthly RA basis.
2. Deduction of taxes shall be made as per the provisions of the relevant Act/Rules.
3. Defect liability: NIL.

Payment Mode

EFT

Invoice to be raised on delivery/invoice address against the given PO line items.

Alternate Mode of Payment for Micro Small & Medium Enterprises (MSMEs):

Trade Receivables Discounting System (TReDS) is a regulatory framework put in place by the Reserve Bank of India under the Payment and Settlement Systems Act 2007 (PSS Act) to facilitate the financing of trade receivables (invoices) of MSMEs through invoice financing by multiple financiers.

The Reserve Bank of India has granted approval to Mynd Solutions Pvt Limited, A.TREDS Ltd and Receivables Exchange of India Ltd (RXIL) to set up and operate TReDS platforms. The Respective TReDS platforms names of the above-mentioned entities are M1xchange, Invoicemart and TREDS.

Currently NTPC Limited is transacting with M1xchange and RXIL TReDS platforms.

MSME Vendors may choose the TReDS platforms as an alternate payment mechanism.

For queries/ details, the vendor may directly contact M1xchange or RXIL at:-

M1XCHANGE:-

URL: <https://m1xchange.com>

Toll free No.: 1800-103-7261

RXIL:-

URL: <https://www.rxil.in/Home/Index>

Phone: 022-40771424, 40771426

Toll free No.: 1800 1038 311

Special Instruction

1. Total Contract Value as per GEM PO : Rs. 22,00,000/- including GST.
2. Completion Period : 12 months
3. Security Deposit (SD): SD shall be deducted @ 5% in each RA bill up to ceiling limit of 3% of the contract value which will be released after defect liability period.
4. Signing of Contract Agreement : The Agency has to execute contract agreement with NTPC on appropriate value of non-judicial stamp paper.
5. GST : GST shall be paid extra
6. The price shall be firm and no variation shall be allowed on any account till execution of complete work.
7. All other terms & conditions shall be as per NTPC Bid document.

Break up of Price (For Service Related Lines Only)

SI No.	Service Code	Description	Qty.	UOM	Rate	Premium	Discount	Addl Discount	Net Rate	Value
10 .10	CVDSR18 02064	DSR-2018 Item:2.32	11,600	M2	5.44	0.00	1.89	0.00	3.5503	41,182.93
20 .10		NSI-01 Digging holes in ordinary soil	3,000	EA	40.90	0.00	14.21	0.00	26.6922	80,076.47
20 .20		NSI-02 Planting of trees and shrubs	3,000	EA	22.24	0.00	7.73	0.00	14.5143	43,542.81
20 .30		NSI-03 Maintenance of trees, shrubs	49,836	EA	32.85	0.00	11.41	0.00	21.4386	1,068,412.43
20 .40		NSI-04 Supplying and stacking of well de	50	M3	1,128.99	0.00	392.19	0.00	736.8014	36,840.07
20 .50		NSI-05 Supplying of Anti terminator	50	L	522.88	0.00	181.64	0.00	341.2420	17,062.10
20 .60		NSI-06 Supplying of fertilizers DAP	500	KG	28.62	0.00	9.94	0.00	18.6780	9,338.99
20 .70		NSI-07 Supply of fertilizer Uria etc	500	KG	8.17	0.00	2.84	0.00	5.3319	2,665.95
20 .80		NSI-08 Supply and stacking of Mango	500	EA	150.00	0.00	52.11	0.00	97.8930	48,946.50
20 .90		NSI-09 Supply and stacking of Guava	500	EA	130.00	0.00	45.16	0.00	84.8406	42,420.30
20 .100		NSI-10 Supply and stacking of Sharifa	400	EA	150.00	0.00	52.11	0.00	97.8930	39,157.20
20 .110		NSI-11 Supply and stacking of Jackfruit	500	EA	150.00	0.00	52.11	0.00	97.8930	48,946.50
20 .120		NSI-12 Supply and stacking of Java plum	200	EA	140.00	0.00	48.63	0.00	91.3668	18,273.36
20 .130		NSI-13 Supply and stacking of Bel plant	200	EA	140.00	0.00	48.63	0.00	91.3668	18,273.36
20 .140		NSI-14 Supply and stacking of Mulberry	200	EA	150.00	0.00	52.11	0.00	97.8930	19,578.60
20 .150		NSI-15 Supply and stacking of gooseberry	100	EA	130.00	0.00	45.16	0.00	84.8406	8,484.06
20 .160		NSI-16 Supply and stacking of Lychee	100	EA	160.00	0.00	55.58	0.00	104.4192	10,441.92
20 .170		NSI-17 Supply and stacking of Almonds	100	EA	200.00	0.00	69.48	0.00	130.5240	13,052.40
20 .180		NSI-18 Supply and stacking of Lemon	100	EA	220.00	0.00	76.42	0.00	143.5764	14,357.64
20 .190		NSI-19 Supply and stacking of oleander	100	EA	80.00	0.00	27.79	0.00	52.2096	5,220.96

SI No.	Service Code	Description	Qty.	UOM	Rate	Premium	Discount	Addl Discount	Net Rate	Value
		p								
20 .200		NSI-20 Tree gaurd square (2.5ft x2.5ft)	500	EA	450.00	0.00	156.32	0.00	293.6790	146,839.50
20 .210		NSI-21 Supply of Un-Skilled manpower	310	EA	648.96	0.00	225.44	0.00	423.5243	131,292.53

DGM (C&M)

Navin Kumar
 नवा- कुमार / NAVIN KUMAR
 का पदावधि (प्राधान्य क्षेत्र) / DGM (ENIT. W&MT)
 एनटीपीसी (सीएल) लिमिटेड / NTPC Limited
 कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
 हज़ारीबाग / Hazaribag

SCOPE OF WORK

00010 : Schedule Item

Scope of work

Name of work: Job contract for Plantation and Maintenance of Tree/Plant/shrubs at R & R Colony, Dhenga, Barkagaon for One Year.

Scope of work:

The Scope of Work shall include all plantation and maintenance related work of trees/shrubs/plants etc that included clearing grass, Digging hole, Plantation, trimming, thala making, watering, application of pesticides, fertilizers, manure, providing and fixing of Fencing/tree guards/Gabion if need, Supply of well decayed farm yard manure, fertilizer, anti terminator, anti fungal and pesticide etc. as per direction of EIC.

1. Labour should be available for all working day in a month to carry out day to day horticulture works for 08 hours.
2. For proper execution of work sufficient numbers of tools & tackles are to be provided by the agency at their own cost, nothing shall be paid extra for this, during execution of the contract. List of minimum tools and tackles required for the work are as noted below:
 - a. Hose pipe : As per requirement.
 - b. Phawra : As per requirement.
 - c. Secateur : As per requirement.
 - d. Basket : As per requirement.
 - e. Khurpi : As per requirement.
 - f. Sickles : As per requirement.
 - g. Sprayer : As per requirement.
 - h. Dab/ Katta : As per requirement.
3. The contractor will have to engage one (01) supervisor for the supervision and co-ordination of plantation and maintenance works. He should be available during working hours for taking instruction of EIC for which no extra payment shall be made by NTPC, failing which deduction of Rs. 700.00 per day shall be deducted from contractors RA Bill.
4. The contractor will have to engage sufficient laborer for plantation and maintenance of all old and new plants.
5. The contractor must complete the work of any item of work within short notice as desired by Engineer-in-charge by increasing the manpower, material, T&P etc. for which no extra cost will be paid.
6. The contractor has to replace every damaged sapling with the same age sapling so as to maintain the survival rate more than 95 %. No extra cost shall be paid by NTPC for the same.
7. Joint inspection and counting of plant/sapling shall be done before release of RA Bill and payment will be done only for the actual survived trees. Penalty shall be deducted from RA bill for each occasion for every damaged trees if the same is not replaced as per condition mentioned above.
8. Spraying / dusting of insecticides, pesticides and fungicides on Plants trees, shrubs, etc. should be carried out as and when required. Sprayer machine would be supplied by agency at their own cost, and for this purpose, no extra payment shall be done by NTPC Ltd. However, if the contractor fails to do the said work a penalty of Rs. 500.00 for each occasion shall be deducted from RA bill. Supply of Insecticides, pesticides and fungicides are in the Scope of Contractor.
9. Application of farm yard manure shall be carried out to each plant / tree as per the requirement and as per direction of officer-in-charge. Also, Application of fertilizer [DAP: 18-46-00] and Urea shall be carried out to each

plant / tree at the rate of 10 gram each per plant per month and as per direction of officer-in-charge. Supply of manure/fertilizer is in the Scope of Contractor.

10. Watering of all plants shall be carried out as per requirements. It will not be obligatory on part of NTPC to ensure supply of water at all locations of planted area. The agency will have to make his own arrangement from existing water supply point of NTPC.

11. In order to prevent entry or grazing or damage to plants by live stock Fencing/tree guards/Gabion, as per the requirement and direction of EIC shall be provided by agency. Supply and installation are in the scope of contractor.

12. In order to prevent entry or grazing or damage to plants by live stock and to avoid theft of fencing materials, if any, complete watch and ward has to be kept by the agency. In case of any grazing or damage to plants by live stock or human being and theft of any plants/materials suitable compensation shall be deducted as per decision of officer-In-charge.

13. In case of mortality of plants, the contractor shall have to replace the plants of by at least two year old plants of same species at his own cost. In case of non replacement, recovery shall be made at the double the Market Rate of the Plant Species. Also deduction shall be made proportionately from BOQ items for Maintenance of the trees/shrubs/plants (i.e. from NSI-03).

14. Contractor should maintain the records of tree plantation status report, tree damage report, and Survival records and get it verified on Monthly Basis. On the basis of certified records monthly R.A bills will be processed.

15. If the agency fails to maintain the entire plantation in proper condition in spite of seven (07) days notice served to the agency. NTPC shall terminate the Contract and will get the job done at the risk and cost of the agency, being a special type of work.

16. The contractor shall abide by all statutory rules and regulations of Local authority, State and Central Govt. as the case may be with regard to statutory benefits and non-statutory benefits prevailing at Coal Mining Projects as applicable, at his own cost and hence the agency has to quote their rate accordingly by taking care of all these.

17. The contractor shall get his workers insured under workman compensation policy at his own cost.

18. The contractor shall have P.F. code no. as per statutory requirements of Provident Fund Act and extend the facilities of P.F. contribution of the act at his own cost and no extra claim shall be entertained by NTPC on this account.

19. If required contractor shall have to obtain valid labour license from competent authority for the workers engaged by him.

20. The contractor shall have to comply with the provision of payment of wages Act, 1936 minimum wages Act, 1948, Employee liabilities 1938, Workers compensation Act, 1923. Industrial dispute Act, 1947, contract labour (Regulation and abolition) Act, 1970 with latest modification thereof or any other related law and rules made time to time. No extra claim shall be entertained by NTPC on this account.

21. The contractor shall ensure payment to his workers by 10th of every month irrespective of whether his bills have been paid by NTPC or not. Prior intimation shall be given to Engineer-in-charge regarding date, time and place for disbursement of salary /wages to workers engaged by him.

22. NTPC reserve the right to terminate the contract at any time during the contract period in case performance is not found satisfactory and work not carried as per instruction of Engineer-in-charge.

Details of plants

Details of Existing plants

Sl. No. Type/Name of Plant No. of Plant Height in Ft Circumference in cm Location Remarks

1 Mango 554 3 to 10 < 30 R & R Colony

2 Jamun 50

3 Amla 50

4 Jakranda 85
5 Gulmohar 80
6 Bottle Brush 50
7 Amaltas 85
8 Guava 100
9 Naspati 45
10 Chiku 18
11 Bell 15
12 Aalu Bukhara 21
Total 1153

SPECIAL CONDITIONS OF CONTRACT

1. Vendor must have experience of completion of similar job of Plantation and Maintenance work.
2. The agency may visit the area at their own cost to get appraised about the job content and local environment before bidding.
3. Water shall be arranged by the agency for watering the plants.
4. No payment will be made for unsatisfactory work.
5. The agency shall employ local people to the extent possible, preferably those losing home / land due to displacement (PAP of NTPC project).
6. The price shall be firm and no variation shall be allowed on any account till execution of complete work.
7. All other terms and conditions shall be as per G.C.C, Special condition of contract and subsequent amendments.
8. The contract shall be valid for a period of twelve months.

Payment Terms

1. The payment shall be made on monthly RA basis.
2. Deduction of taxes shall be made as per the provisions of the relevant Act/Rules.
3. Defect liability: NIL
4. Security deposit will be deducted as per GCC.
5. GST: Extra as applicable.

SERVICE SPECIFICATIONS

10 .10 - CVDSR1802064 (DSR-2018 Item:2.32)

As per DSR 2018

20 .10 - NSI-01 Digging holes in ordinary soil

NSI-01 Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20%: 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with the leads and lifts (Cost of manure, ash or extra earth if needed to be paid seperatly) Holes size 45 cm dia, and 45 cm deep.

20 .20 - NSI-02 Planting of trees and shrubs

NSI-02 Planting of trees and shrubs (excluding cost of trees and shrubs) at required site with all materials, labour, tools and tackles, watering etc. complete as per direction of EIC or his representative.

20 .30 - NSI-03 Maintenance of trees, shrubs

NSI-03 Maintenance of trees, shrubs, climbers by doing all horticultural operations that included trimming, thala making, watering, application of pesticides, fertilizers, manure and fixing of tree guards if need complete with tools and tackles as per instruction of the EIC his repercentative but excluding cost of manure fertilizers etc.Payment will be made on pro-rata basis.(Rate is each per month)

20 .40 - NSI-04 Supplying and stacking of well de

NSI-04 Supplying and stacking of well decayed farm yard manure at required site, including transportation with all leads and lifts, labour and T&P (Measurement shall be taken in stacks and 8% voids to be deducted for payment.)

20 .50 - NSI-05 Supplying of Anti terminator

NSI-05 Supplying of Anti terminator, anti fungle and psticide etc

20 .60 - NSI-06 Supplying of fertilizers DAP

NSI-06 Supplying of fertilizers DAP (18-46-00)

20 .70 - NSI-07 Supply of fertilizer Uria etc

NSI-07 Supply of fertilizer Uria etc

20 .80 - NSI-08 Supply and stacking of Mango

NSI-08 Supply and stacking of Grafted Mango plant (amrapali/malda) of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .90 - NSI-09 Supply and stacking of Guava

NSI-09 Supply and stacking of Grafted Guava (Amrud) plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .100 - NSI-10 Supply and stacking of Sharifa

NSI-10 Supply and stacking of Grafted Custard-apple (Sharifa) plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .110 - NSI-11 Supply and stacking of Jackfruit

NSI-11 Supply and stacking of Grafted Jackfruit plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .120 - NSI-12 Supply and stacking of Java plum

NSI-12 Supply and stacking of Grafted Java plum (Jamun) plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge

20 .130 - NSI-13 Supply and stacking of Bel plant

NSI-13 Supply and stacking of Grafted Bel plant (wood Apple) of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .140 - NSI-14 Supply and stacking of Mulberry

NSI-14 Supply and stacking of Grafted Mulberry plant plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .150 - NSI-15 Supply and stacking of gooseberry

NSI-15 Supply and stacking of Grafted gooseberry (Amla) plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .160 - NSI-16 Supply and stacking of Lychee

NSI-16 Supply and stacking of Grafted Lychee plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .170 - NSI-17 Supply and stacking of Almonds

NSI-17 Supply and stacking of Grafted Almonds (Badam) plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .180 - NSI-18 Supply and stacking of Lemon

NSI-18 Supply and stacking of Grafted Lemon plant of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .190 - NSI-19 Supply and stacking of oleander p

NSI-19 Supply and stacking of oleander plant (different colour) of height 150-180 cm in poly bag of size 20 cm as per direction of the officer-in-charge.

20 .200 - NSI-20 Tree gaurd square (2.5ft x2.5ft)

NSI-20 Tree gaurd square (2.5ft x2.5ft) of ht 5 ft above ground

20 .210 - NSI-21 Supply of Un-Skilled manpower

NSI-21 Supply of Un-Skilled manpower for watch & ward including all tools & tackels

Prepared By:

VEERA SURESH RABBA

List of Documents

Please note that below documents are needed to be provided along with Invoice.

S.No.	Document Description
1	Invoice
2	PF Compliance Certificate
3	Wage Sheet

POLLUTANT LEVEL DISPLAY PHOTOGRAPH



Navin Kumar

नवीन कुमार / NAVIN KUMAR
एन पीएससी (नवीन प्रोजेक्ट) / OGMP (ENVT. NGMT.)
प्रोवाइडर / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हाज़रीबाग / Hazaribag



Navin Kumar
 नवा कुमार / NAVIN KUMAR
 डी. एम. ए. (मिनिंग एंड मीन)
 डी. एम. ए. (मिनिंग एंड मीन) / DGM (ENIT, MSMT)
 भारतीय कोयला निगम लिमिटेड
 भारत कोयला निगम लिमिटेड / COAL MINING PROJECTS
 हजारीबाग / Hazaribag



Navin Kumar

नवा- कुमार / NAVIN KUMAR
का सहायक (सर्वजन धरन) / DGM (ENVT. & SMT.)
अधीनस्थ / NTPC Limited
कोयला खनन परियोजनाएँ / COAL MINING PROJECTS
हजारीबाग / Hazaribag

CTO no. - JSPCB/HO/RNC/CTO-16378207/2023/1154, Dt. 28.06.2023: Submission of Environmental Statement in Form-V for the financial year ending on 31st March 2023 for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

PBENV <pb_env@ntpc.co.in>

Fri 06/09/2023 18:14

To:ranchijspcb@gmail.com <ranchijspcb@gmail.com>

Cc:TSPAKRI <tspakri@ntpc.co.in>;Upendra Kumar Pandit

<UPENDRAKUMARPANDIT@NTPC.CO.IN>;NAVIN <NAVINKUMAR03@NTPC.CO.IN>;Birendra Kumar

<BIRENDRAKUMAR01@NTPC.CO.IN>;jspcb_hazaribagh@rediffmail.com

<jspcb_hazaribagh@rediffmail.com>;ro.ranchi-mef@gov.in <ro.ranchi-

mef@gov.in>;mkbiswas.cpcb@nic.in <mkbiswas.cpcb@nic.in>

1 Attachment(s) (13 MB)

D.No.-183, Date-27.09.2023 (Environment Statement form V PBCMP).pdf;

Dear Sir,

In compliance of the General condition no. 8 of the CTO mentioned under subject, please find enclosed herewith the Environmental Statement in Form-V for the financial year ending on 31st March 2023 for Pakri Barwadih Coal Mining Project of M/s NTPC Ltd.

Thanking You,

With Regards,

Navin Kumar

Dy. GM (Envt. Mgmt.)

PB, PB-NW & Badam CMP

NTPC Ltd.- Hazaribagh

Mob: 9470197223



Navin Kumar
 नवा- कुमार / NAVIN KUMAR
 डी.जी.एम. (पर्यावरण प्रबंधन) / DGM (ENVT. MGMT.)
 एन.टी.पी.सी. लिमिटेड / NTPC Limited
 बंदराना कालन परियोजनाएँ / COAL MINING PROJECTS
 हजारीबाग / Hazaribag

Ref No.: 1040/PBCMP/EMG/2023-38/183

Date: 08.09.2023

To

THE MEMBER SECRETARY,

JSPCB (Jharkhand State Pollution Control Board),

H.E.C., Dhurwa,

Ranchi - 834 004 (Jharkhand)

Email: ranchijspcb@gmail.com.

Dear sir,

Sub: Submission of Environmental Statement in Form-V for the financial year ending on 31st March 2023 for "Pakri Barwadih Coal Mining Project, NTPC Limited, Hazaribagh, Jharkhand"-Reg.

Ref: - CTO granted to PBCMP vide Ref No. JSPCB/HO/RNC/CTO-16378207/2023/1154, Dt. 28.06.2023.

In compliance with the Rule 14 of the Environmental (Protection) Rule 1986, Please find herewith enclosed the Environmental Statement in Form-V for the financial year ending on 31st March 2023 for "Pakri Barwadih Coal Mining Project, NTPC limited, Hazaribagh, Jharkhand".

This is for kind information please.

Thanking you,

Received
hul
22/9/23



Yours faithfully

Navin Kumar

[Navin Kumar]

DGM, (Env. Mgmt.)

Coal Mining Project

नवीन कुमार/NAVIN KUMAR

एनटीपीसी लिमिटेड/ NTPC Limited

कोयला खनन परियोजनाएँ/ COAL MINING PROJECTS

हजारीबाग/ Hazaribagh

Copy To,

1. Regional Director, Kolkata, Central Pollution Control Board, Southern Conclave Block 502, 5th & 6th Floors, Rajdhanga Main Road, Kolkata-700107 (W.B.), Email: mkbiswas.cpcb@nic.in
2. Regional Officer, Jharkhand State Pollution Control Board, PTC Chowk, Hazaribagh, Jharkhand, Email: jspcb_hazaribagh@rediffmail.com
3. The Additional Principal Chief Conservator of Forest (C), Ministry of Environment, Ranchi (Jharkhand)-834002, email-ro.ranchi-mef@gov.in