

Joint Inspection Report in the matter of O.A. No. - 61/2019/EZ

(I.A. No. - 47/2019)

Mr. Tripurari Singh Vs Ministry of Railway Govt. of India & Ors.

1.0 Background:

In light of the Hon'ble NGT Order dated 17th July, 2020 in the matter of **Tripurari Singh (Applicant) Vs Ministry of Railway Government of India & Ors.**, a committee was constituted comprising of members from (i) Central Pollution Control Board (CPCB), (ii) Jharkhand State Pollution Control Board (JSPCB) and (iii) District Magistrate of Hazaribagh, Jharkhand. Copy of Order enclosed as **Annexure-I**. The order reads as

..... In the meanwhile, we deem it necessary to constitute a Committee comprising of (i) the Central Pollution Control Board (CPCB); (ii) the Jharkhand Pollution Control Board (State PCB) and, (iii) the District Magistrate, Hazaribag, Jaharkhand, who shall jointly visit the area in question, inspect the railway yard owned by the Respondent No. 4 and submit a report on the factual position obtaining there. The State PCB shall be the nodal agency for coordination and for providing logistic support. In the event the allegations are found to be true,



appropriate action be instituted in accordance with law against the Respondents No. 4 (M/s TSMPL) and 5 (M/s NTPC Ltd).....

..... It is made clear that the Applicant and/or his representative shall be permitted to participate during the inspection and submit such further documents of relevance to the Members of the Committee. Notice of the date of inspection shall be given to the Applicant before commencing with the task.....

In light of the above joint visit was scheduled on 21.08.2020 notice of the same was also served to the applicant. However, the then Deputy Collector, Hazaribagh contacted with COVID-19 accordingly inspection was rescheduled. Later, the committee inspected the Banadag Railway siding on 23.09.2020. Notice of the same was also served to the applicant. Copy of letter attached collectively as

Annexure-II.

As per the order of Hon'ble NGT the applicant was allowed to be present during the inspection by the committee. Details of the committee members are as under:

SI No.	Name	Designation	Organization
i	Sh. Aditya Kr. Anand	Dy. Commissioner, Hazaribagh	Govt. of Jharkhand.
ii	Sh. Ashok Kr. Yadav	Regional Officer	JSPCB, Regional Office, Hazaribagh
iii	Md. Taufique Aslam	Scientist "B"	CPCB, EZ, Kolkata



Applicant Sri Tripurari Singh was allowed to be present during the inspection. Applicant Sri Tripurari Singh had gathered more than 50 villagers during the inspection by the committee.

2.0 Brief facts and Finding of the committee:

- 2.1 The Banadag railway siding which is in question of the application is Public Railway Siding and is owned by the Indian Railway and comes under East-Central Railway. Copy of the notification is enclosed as **Annexure-III**.
- 2.2 Banadag Railway siding is situated in revenue village Banadag and part of the siding extend in revenue village Banka and Katkamdag also.
- 2.3 Consent to Operate for operation of the Banadag Railway Siding is granted under **Air (Prevention and Control of Pollution) Act 1981** and **Water (Prevention and Control of Pollution) Act 1974** by Jharkhand State Pollution Control Board vide letter No. JSPCB/HO/RNC/CTE/CTO – 4666748/2020/2 Dtd. 25/03/2020 which is valid up to 30.09.2021. Copy of CTO is enclosed as **Annexure-IV**.
- 2.4 Through the railway siding is in revenue village of Banadag and extends in village Katkamdag and Banka, the habitation of said villages are more



than 500m away from the railway siding. Copy of Map showing various villages are enclosed as **Annexure-V**.

2.5 Average aerial distance of habitation in each village mentioned in the OA are as under:-

- a) Katkamdag - 1.25 kilometer
- b) Banadag - 0.93 kilometer
- c) Banka - 0.85 kilometer
- d) Sultana - 2.95 kilometer
- e) Sadampur - 4.20 kilometer
- f) Hathamedi - 1.80 kilometer
- g) Mayatu - 2.92 kilometer

2.6 There is no major river in the area except one seasonal streamlet in southern side which is about 1.00 Km away from the Banadag railway siding. No water flow was observed in the streamlet during the inspection. There is one pond in eastern side of the railway siding which is about 600 m away from siding. "Gonda" Dam is at about 2.5 km in the North of Banadag Railway Siding. There is no river namely "Gonda" is found in the area.



2.7 Presently, at Banadag Railway Siding, coal from Pakri Barwadih Coal Mining Project of NTPC Ltd (NTPC – PBCMP) is being loaded and transported to its various thermal power plants. NTPC – PBCMP is having valid Consent to Operate under **Air (Prevention and Control of Pollution) Act 1981** and **Water (Prevention and Control of Pollution) Act 1974**. Both the consent is valid till 31.12.2023. The industry is also having valid authorization under the **Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016** and is valid till **16.05.2023**. Copy of the Consent and Authorisation is enclosed collectively as **Annexure-VI**.

2.8 As per record from Railway the total land acquired for railway siding is 187.82 Ac. Village wise details of land acquired for railway siding is **Annexure- VII**.

2.9 Agricultural fields were found on northern and south-eastern side of the railway siding. Paddy and other crops cultivation were observed in the nearby fields. There were no signs of pollution on the paddy or other crops fields.

2.10 No forest land was found to be encroached by the railway siding. Distance of the forest from the Banadag railway siding is 350m – 550m. Copy of



the distance certificate issued by DFO Hazaribagh is enclosed as **Annexure- VIII.**

2.11 MoEF&CC, GoI have accorded Stage-I & Stage-II clearance for diversion of **6.291 Ha** of forest land in favour of M/s NTPC Ltd for construction of siding along the Banadag Railway Siding. Copy of the clearances is enclosed as **Annexure- IX.**

3.0 Regulatory Compliance status under Air (Prevention and Control of Pollution) Act 1981 and Water (Prevention and Control of Pollution) Act 1974:

3.1 Transportation of the coal was stopped 31.08.2020 due to agitation by villagers. And hence during inspection no coal transportation was going on. However as per document submitted by NTPC Ltd – Pakri Barwadih Coal Mining Project, Coal from the mine end to Banadag Railway Siding is transported in covered trucks/dumpers. Coal transportation trucks are properly covered with tarpaulins for prevention of spillage & generation of dust. Some photographs enclosed as **Annexure- X.**

3.2 Permanent boundary wall of 10-12 ft height was constructed all around the railway siding. About 7 to 8 ft of green agro net was installed to further increase the effective height of the wall. Work for construction and installation of 20 ft height wind screen (over and above the boundary



wall) was under progress. Copy of work order, design of wind screen and photographs are collectively enclosed as **Annexure-XI**.

3.3 To prevent dust from the loading and unloading activity, high capacity (600 Liter/minute with 35m to 45m throw) fixed rain guns were installed and were operational. Copy of design of the fixed sprinklers and photographs are enclosed as **Annexure-XII**.

3.4 Two to three rows of plantation were observed all along the boundary wall of railway siding.

3.5 Kutcha garland drains and settling ponds were constructed and were in operation. Work for construction of permanent drain and settling pond were in progress. Copy of work order and design of the Settling Pond are enclosed as **Annexure-XIII**.

3.6 Roof top Rainwater harvesting structures were installed at office buildings/structures. Photographs are enclosed as **Annexure-XIV**

4.0 Environmental Parameter Monitoring:

4.1 Due to rainy season during the inspection, the field environmental parameter could not represent actual air quality status accordingly air quality was not monitored during inspection.



- 4.2 However, last Six month data on air quality monitoring of Railway Siding done by User agency through MoEF & CC approved and NABL accredited Lab were analyzed. Minimum value of PM_{10} was observed **$61.8\mu g/m^3$** and Maximum value was **$80.6\mu g/m^3$** . Which are within the limit (**$PM_{10} = 100\mu g/m^3$**) prescribed by CPCB. Report of the same is enclosed as **Annexure-XV**.
- 4.3 An online PM_{10} monitor was installed and was in operation. Real-time data were being transmitted to JSPCB website.
- 4.4 Fugitive emission (SPM) is also monitored by user agency. Minimum value of SPM was observed **$209\mu g/m^3$** and Maximum value was **$282\mu g/m^3$** . Against the prescribed limit of **$SPM = 500\mu g/m^3$** by CPCB.
- 4.5 In process of operation of Railway Siding no process effluent is generated except runoff water during rainy season. Kutcha garland drains and settling ponds were constructed and were in operation. Work for construction of permanent drain and settling pond were in progress.

5.0 Overall Observation:

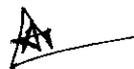
- 5.1 Banadag Railway Siding is being operated by M/s Indian Railway with valid Consent to Operate and not by NTPC Ltd.



- 5.2 M/s NTPC Ltd is operating its Pakri Barwadih Coal Mine with valid Consent to Operate.
- 5.3 M/s NTPC Ltd has outsourced the coal transport. No coal transport was going on during the inspection however Coal is transported by covered trucks through dedicated road passing through conveyor corridor and forest.
- 5.4 Only part public road is used by empty trucks. No coal transport trucks of M/s NTPC are passing through the habitation of village mentioned in the OA.
- 5.5 "**Gonda Dam**" is more than 2.5 km away from the Banadag Railway Siding and there is no impact on it due to Banadag Railway Siding. No River is found namely "**Gonda**" in the nearby area of Banadag Railway Siding.
- 5.6 No forest land is encroached for construction of Banadag Railway Siding. However, MoEF & CC have accorded Forest Clearance for diversion of 6.291 Ha of forest Land in favor of M/s NTPC Ltd. for construction of Railway Siding at Banadag.
- 5.7 Action being taken for pollution prevention at Banadag Railway Siding viz installation of high capacity fixed Rain guns, installation of wind screens over and above boundary wall, installation of Effluent treatment plant.



- 5.8 No pollution and adverse impact was observed on the crops of nearby agriculture fields. Some of photographs of crops around Railway Siding is enclosed as **Annexure- XVI**.
- 5.9 Green belts are being developed along the boundary wall of the railway siding however more nos. of trees are required to be planted for creation of fence between siding and agriculture fields.
- 5.10 The ambient air quality is well within the stipulated norms. Maximum concentration of PM₁₀ was **80.6µg/m³** against the norms of **100µg/m³**.
- 5.11 It is to be submitted that in similar complain in the matter of Mr Rajeswar Prasad Raja vs State of Jharkhand (**O.A. No. 284/2019**) joint inspection report was submitted with specific recommendation to prevent overloading and spillage and to improve the transportation system.
- 5.12 The process of road construction from Oderna to TP-6 is on the way. Necessary documentation has been finalized.
- 5.13 There is no habitation between Oderna to TP-6 road.
- 5.14 Fataha to Banadag Road is under construction, approx. 80 percent of road patch is completed. There are two villages in between Fataha and Banadag road.



5.15 With completion of these two roads, pollution will be minimized. There is no hindrance of the public in these roads.

5.16 With completion of Oderna to TP-6 Road there will be no hindrance in village road as there is no house in the stretch of this 1.5 km and from there to Banadag, there is no house hold.

6.0 Recommendations:

In view of the observation made by the committee constituted by the Hon'ble NGT, in the above said matter, the competent authority may issue necessary direction (if needed and deemed fit) to ensure the following:

6.1 In the similar complain in the matter of Sri Rajeshwar Prasad Raja vs. State of Jharkhand, **(OA No. 284/2019)**, the case was disposed off and the directions to prevent overloading and spillage and improve the transportation systems were complied satisfactorily by NTPC Ltd. and others.

6.2 All the railway sidings 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

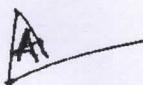


to prevent the dusts to spread and should do tree plantation along the boundary wall.

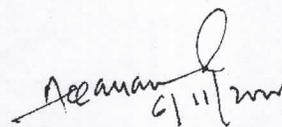
- 6.3 NTPC should complete the construction of the coal conveyor system at the earliest so as the coal transportation by road could be avoided.



Md. Taufique Aslam
Scientist "B"
CPCB, EZ, Kolkata



Sh. Ashok Kr. Yadav
Regional Officer, JSPCB,
Regional Office, Hazaribagh
Regional Officer
J.S.P.C BOARD
Hazaribagh



Sh. Aditya Kr. Anand
Dy. Commissioner, Hazaribagh
Govt. of Jharkhand.

Item No. 02

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
(Through Video Conferencing)**

Original Application No. 61/2019/EZ

(I.A. No. 47/2019)

Tripurari Singh

Applicant(s)

Versus

Ministry of Railways, Govt. of India & Ors.

Respondent(s)

Date of hearing: 17.07.2020

**CORAM: HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s): Mr. Anup Kumar, Advocate.

For Respondent(s): Mrs. Aishwarya Rajyashree, Advocate for
Respondents No. 2, 6 & 7.
Mr. Uttam Kumar Mandal, Advocate for
Respondents No. 4 & 5.

ORDER

1. Case taken up by video conference on *Vidyo App*.
2. This case has been filed by the Applicant being seriously aggrieved by illegal transportation of coal and its dumping by the Respondent No. 4 in violation of the pollution norms through villages Katkamag, Baanadag, Banka, Sultana, Sadampur, Hathamedi and Mayatu in the Hazaribagh district of Jharkhand. It is alleged that because of such

activities the river and ponds in the area have been affected and about 8.5 acres of forest lands encroached upon by the Railways and NTPC for construction of railway dockyard which is being used illegally for dumping of coal and transportation. Because of such activity of Respondents No. 4 and 5, health of the inhabitants of the villagers has been adversely affected and have become victims of various diseases. It is stated that objections of the villagers raised from time to time have been ignored.

3. We have considered the application, perused the documents and photographs filed with the application as well as the submissions of the learned Counsel for the Applicant and we are satisfied that the case involves substantial question relating to environment.
4. Issue notice returnable in thirty days weeks.
5. The Applicant to furnish requisites within one week from hence.
6. However, in view of the prevalent situation caused by the pandemic, the Applicant is at liberty to serve notice by e-mail apart from the formal notice.

7. In the meanwhile, we deem it necessary to constitute a Committee comprising of (i) the Central Pollution Control Board (CPCB); (ii) the Jharkhand Pollution Control Board (State PCB) and, (iii) the District Magistrate, Hazaribag, Jharkhand, who shall jointly visit the area in question, inspect the railway yard owned by the Respondent No. 4 and submit a report on the factual position obtaining there.

The State PCB shall be the nodal agency for coordination and for providing logistic support.

8. In the event the allegations are found to be true, appropriate action be instituted in accordance with law against the Respondents No. 4 and 5.
9. Let an action taken report in terms of the above directions be filed before the next date with advance copy on the Applicant.
10. The Applicant shall furnish complete sets of papers and copy of this order to each of the Members of the Committee for convenient transaction of the exercise within a period of one week from hence.

11. It is made clear that the Applicant and/or his representative shall be permitted to participate during the inspection and submit such further documents of relevance to the Members of the Committee. Notice of the date of inspection shall be given to the Applicant before commencing with the task.

12. List on 07.09.2020.

S.P. Wangdi, JM

Dr. Nagin Nanda, EM

17th July, 2020
O.A. No. 61/2019/EZ
avt



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004
Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref. No.....

Ranchi, Dated.....

From,

Rajeev Lochan Bakshi,
Member Secretary,

To,

The Deputy Commissioner,
Hazaribagh.

The Additional Director,
Central Pollution Control Board, Regional Directorate
Kolkata.

The Regional Officer,
Regional Office, Jharkhand State Pollution Control Board, Hazaribagh.

Shri Tripurari Singh,
S/O Late Anirudh Singh, R/O-Village, .Kadma, . P.S-Katkamdaag,
District- Hazaribagh, Jharkhand Pin-825302

Sub: - Regarding compliance of directions issued by Hon'ble NGT, in Original Application No. 61/2019/EZ (I.A. No. 47/2019) dated 17/02/2020.

Sir,

With reference to the above noted subject, in light of the Hon'ble NGT, Principal Bench, New Delhi order dated 17/02/2020 in O.A No. 61/2019/EZ (I.A. No. 47/2019), Tripurari Singh Versus Ministry of Railways, Govt. of India & Ors. The operative part of the order is as follows :

"2. This case has been filed by the Applicant being seriously aggrieved by illegal transportation of coal and its dumping by the Respondent No. 4 in violation of the pollution norms through villages Katkamag, Baanadag, Banka, Sultana, Sadampur, Hathamedi and Mayatu in the Hazaribagh district of Jharkhand. It is alleged that because of such activities the river and ponds in the area have been affected and about 8.5 acres of forest lands encroached upon by the Railways and NTPC for construction of railway dockyard which is being used illegally for dumping of coal and transportation..."

7. In the meanwhile, we deem it necessary to constitute a Committee comprising of (i) the Central Pollution Control Board (CPCB); (ii) the Jharkhand Pollution Control Board (State PCB) and, (iii) the District Magistrate, Hazaribag, Jharkhand, who shall jointly visit the area in question, inspect the railway yard owned by the Respondent No. 4 and submit a report on the factual position obtaining there...

11. It is made clear that the Applicant and/or his representative shall be permitted to participate during the inspection and submit such further documents of relevance to the Members of the Committee. Notice of the date of inspection shall be given to the Applicant before commencing with the task..."

In light of the above, Shri Ashok Yadav, Regional Officer, Regional Office, Hazaribagh (Contact No. 7250218115 and email i.d ranchijspcb@gmail.com) has been nominated by Jharkhand State Pollution Control Board as the member of the Committee constituted by Hon'ble NGT to carry out the joint inspection yard on 21/08/2020.

This is for your Kind perusal and necessary action please.

Thanking you.

Yours Sincerely,

Sd/-
[Rajeev Lochan Bakshi]
Member Secretary

JHARKHAND STATE POLLUTION CONTROL BOARD

Memo. No. B-1060

Ranchi, Dated- 05/8/2020

Copy to: The G.M, National Thermal Power Corporation, Pugmil Road Hazaribagh, for information.

[Rajeev Lochan Bakshi]
Member Secretary

Rajeev
05/08/2020

- To: The Member Secretary,
- The Deputy Commissioner,
- The Additional Engineer,
- Central Pollution Control Board, Regional Directorate,
- The Regional Officer,
- Regional Office, Jharkhand State Pollution Control Board, Hazaribagh,
- The Inspector,
- W/O Late Anand's Bazar, P.O. Village, Hazaribagh, Jharkhand,
- Office, Hazaribagh, Jharkhand P.O. No. 200

Re: Regarding compliance of order dated 05.08.2020, No. 1060/2020, JSPCB, Ranchi, dated 05.08.2020.

1. In compliance of the order dated 05.08.2020, No. 1060/2020, JSPCB, Ranchi, dated 05.08.2020, the Respondent No. 4 is directed to take necessary measures to prevent the discharge of effluents into the river and ponds in the area.

2. The Respondent No. 4 is directed to ensure that the effluents are not discharged into the river and ponds in the area. The Respondent No. 4 is directed to take necessary measures to prevent the discharge of effluents into the river and ponds in the area.

3. In the meanwhile, the Respondent No. 4 is directed to constitute a Committee comprising of the Regional Officer, Jharkhand State Pollution Control Board, Hazaribagh, and the Additional Engineer, Hazaribagh, to inspect the Respondent No. 4 and submit a report on the factual position regarding this.

4. It is made clear that the Respondent No. 4 or his representatives shall be permitted to participate during the inspection and submit such further documents of relevance in the records of the Committee. The date of inspection shall be given to the Respondent before commencing with the work.

In light of the above, the Respondent No. 4 is directed to constitute a Committee comprising of the Regional Officer, Jharkhand State Pollution Control Board, Hazaribagh, and the Additional Engineer, Hazaribagh, to inspect the Respondent No. 4 and submit a report on the factual position regarding this.

This is for your kind perusal and necessary action please.

Yours sincerely,

[Rajeev Lochan Bakshi]
Member Secretary

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद,

क्षेत्रीय कार्यालय-सह-प्रयोगशाला, पी0टी0सी0 चौक, मटवारी रोड, हजारीबाग।

पत्रांक १३५

दिनांक २१/११/२०

From,

A. K. Yadav
Regional Officer.

To

Sri Tripurari Singh,
S/o Lt. Anurudh Singh
At + P.O. – Kadma, P.S. – Katkamdag. Distt. - Hazaribagh.

Sub. Regarding inspection of site of M/s Banadag Railway Siding & its approach road in the light of NGT OA no. 61 / 2019 (EZ).

Ref. no. – H.Q. Mem no. B – 1060, dtd 05.08.2020, Ranchi.

Sir,

With reference to the above subject this is to inform you that as per convenience of the Deputy Commissioner, Hazaribagh, the date of inspection has been fixed on 23.09.2020.
This is for your information & necessary action.

Your Faithfully

(A. K. Yadav)

Regional Officer

ANNEXURE-III

EAST CENTRAL RAILWAY

Rates Circular (Goods)No. 20 of 2015

No-ECR/CRM/FMS/04/Bandag-DHN

Date 08.05.2015

To,

All Station Managers/Parcel Supervisors/Goods Supervisors/Siding Clerk/Weigh Bridge Clerk of ECR

Sr.DCM/E. CRly.DNR,MGS,DHN,SPJ,and SEE &CAM/E.CRly/DHN.

CAO(TA),SAO(TA)E.C.Rly.FA&CAO:E.C.Rly,Dy.CCM (Claims)

,COM&CFIM/E.C.Rly/HJP,Principal ZTC/MFP/Bhuli.

The Principal Director of Audit/E.C.Rly/HJP.

Copy for information and necessary action to the:-

CCM:-E.Co.RLY/SECR/N.RLY/N.F.RLY/E.RLY/S.RLY/W.RLY/N.E.RLY/C.RLY

SWRLY/NCRLY/NWRLY/SE RLY/SCRLY/WCRLY.

CAO&CPM/CRIS/NDLS

Director, Traffic Comml.(Rates)/Railway Board/New Delhi

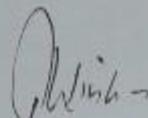
EDRM/Kolkatta

Sub: - Commercial Notification of Bandag Siding served by Hazaribagh(HZBN) Station over DHN Division as a Public Siding.

The competent authority has accorded approval for opening of Bandag Siding as a public siding for booking of Non-Programmed Coal under priority "D" only having full rake capacity. Distance from center of serving station i.e. Hazaribagh to buffer end of siding is 7.581 kms. for charging of freight on through distance basis.Details are as under-

1.	Name of Siding	Bandag Siding
2.	Serving station	Hazaribagh
3.	Name of freight collection station	Hazaribagh
4.	Numerical Code	10120461
5.	Alpha Code	BNDG
6.	Weighment	UP-MGS DN- GMO,ASN,Waria & Tupkadih(for BKSL)

All other Commercial formalities must be complied with. All concerned to please note & act accordingly.


(P.K. SINHA)

Dy.CCM/HW

for Chief commercial Manager



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004

Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400138

Ref No. JSPCB/HO/RNC/CTE/CTO-4666748/2020/2

Dated : 2020-03-25

Combined Consent (CTE & CTO) under section 25 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 2020-03-04 of BANADAG RAILWAY SIDING, Occupier Name :M S RIZVI for consent(Consent to Establishment and Consent to Operate) 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 Consent-to-Establish (CTE), Ref No JSPCB/RO/HZB/CTE-1443595/2017/458 Dated 05.09.2017, JSPCB, Ranchi.

(b) The content of (existing) Consent-to-Operate (CTO), Ref No. 2529 Dated 24.12.2019.

(c) The content of minutes of the meeting held on 25th Feb' 2019 regarding issues railway siding situated in Jharkhand.

(d) The content of Inspection Report (I/R), Ref No. 1451 dated 18.09.2019 of Regional Office-Cum-Laboratory, JSPC Board, Hazaribagh.

(e) The content of Environmental Compensation vide dated 16.01.2020.

(f) The content of submission of amount against the Environmental Compensation.

3. The consent is granted under section 25 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 - BANKA, KATKAMDAG, BANADAG , P S -BANADAG , District -HAZARIBAGH , as follows:

Project	Site-Area		Investment (Rs)	Product & Capacity	Validity
	Plot Nos.	Area			
In Expansion	1540-1550, 3920-4041 etc. Khata No. 02 (As per application)	122000 Sqm (As per application)	1000.00 Lakhs	Loading and unloading of raw coal - 12,50,000 TPM (as per application)	Date of issue to 30.09.2020

(A) Specific Conditions:

- (1) That, he /they shall submit AAQ & Noise level Monitoring reports thrice within the consent period and the analysis reports must be prepared by an organization recognized by JSPCB / CPCB / MoEF, Govt. of India.
- (2) That, he/they shall allow transportation of materials either in lumps or in fines only through covered and leak proof dumpers/trucks within the railway siding area.
- (3) That, he/they shall transport the materials only of those mines/plants who have valid authority for transportation under valid provisions of the law.
- (4) That, he (they) shall in no case discharge runoff water or waste water of premises outside the railway sidings.
- (5) That, he (they) shall allow transport of materials through the railway siding of such mines/plants which have valid consent to operate order of the State Pollution Control Board and also keep a record thereof and shall make available to the officer (s) concerned during his (their) visits of the site.
- (6) That, the occupier shall comply following directions as per the decision taken in the minutes of the meeting held on 25th Feb' 2019 regarding issues railway siding situated in Jharkhand:
 - (a) That, the occupier shall construct permanent boundary/wind breaking wall of at least 20 ft. height all along the railway siding within three months from the date of issue of CTO and submit the report to the Board.
 - (b) That, the occupier shall develop three tier plantation all along the boundary wall with de-silting pit within three months and submit the report to the Board.
 - (c) That, the occupier shall construct garland drain all along the boundary wall with de-silting pit within three months from the date of issue of CTO.
 - (d) That, the occupier shall install fixed type water sprinklers/foggers on all roads and sidings to control fugitive emission within four months from the issuance of CTO and submit the report to the Board.
 - (e) That, the occupier shall install PM10 analyzers within two months from the date of issuance of CTO and submit the report to the Board.
 - (f) That, the occupier shall carry out transportation of coal in wet conditions i.e. wet transportation must be carried out and submit the photographs to the Board.
 - (g) That, the occupier shall ensure that vehicle used for transportation must be covered with tarpulin sheets.
 - (h) That, the occupier shall construct rain water recharge system within three months from the date of issuance of CTO and submit the report to the Board.
- (d) That, the occupier shall comply all the conditions laid down in CTE and CTO.
- (7) That, the occupier shall comply all the conditions as mentioned above and submit the reports to the Board within stipulated timeline otherwise, CTO will stand revoked.

- (8) That, he/they shall make arrangement of water sprinkling through fixed water sprinklers or tankers having facility of pressure pump and fogging system at loading-unloading sites and on the transportation road within two months and report to the Board Head office at Ranchi as well as Regional Office, JSPCB, Hazaribagh.
- (9) That, the occupier shall construct pucca internal road within the premises.
- (10) That, the occupier shall construct garland drain in the premises.
- (11) That, if the occupier is found violating the Consent to Operate at any point of time during inspection of the plant by the competent authority, the Consent to Operate shall be revoked as per provision of the acts.
- (12) That, the Board shall impose any other condition at any point of time as recommended by the Regional Office / Head Office, JSPCB for control of pollution as it find deem fit.
- (13) That, the occupier shall, comply with all the conditions related to railway siding as directed in the JSPCB letter memo no B-387 dated. 11.04.2019 within defined timeline. If the unit is found to be non-complied with respect to these conditions as stated in the referred latter then CTO would be revoked and environmental compensation will be levied as per NGT order from the date of issue of this CTO.
- (14) That, this combined (CTE and CTO) will supersede the CTO the previously granted CTO vide ref. no. 2529, dated 24.12.2019.
- (15) That, the occupier shall submit application 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 documents showing compliance of all of the above conditions.

(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, every year latest by 30th September of the next financial year.
- (9) That, this Consent 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.

- (10) That, this Consent 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.
- (11) That, this Consent 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.
- (12) 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 Consent 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 Consent is being issued on the basis of information/ documents/ certificate submitted by the unit. This Consent 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

[Ashok Kumar Yadav]
Regional Officer, Hazaribagh

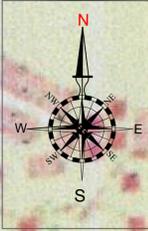
Memo No. : JSPCB/HO/RNC/CTE/CTO-
4666748/2020/2

Dated : 2020-03-25

Copy to: M/s BANADAG RAILWAY SIDING, At- BANADAG RAILWAY SIDING HAZARIBAGH/
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, JSPCB, Hazaribagh for information & ensuring compliance of the above.

[Ashok Kumar Yadav]
Regional Officer, Hazaribagh

ANNEXURE-V



Sādampur

Meyātu

Luta

Barwādi

Sālgā

Sultāna

Hāthāmerhi

Kalkamdāg

Open scrub
667

Bānka

Bānādāg

Kasoria

Tilaiya

ECR Indian Railway

Banadag Railway Siding

BANADAG RAILWAY SIDING

NTPC Ltd SILO/Railway siding

Arā

Open jungle mainly sāl

DISTANCE FROM SIDING TO VILLAGES	
KATKAMDAG	1.25 KM
BANADAG	0.93 KM
BANKA	0.85 KM
SULTANA	2.95 KM
SADAMPUR	4.2 KM
HATHAMEDI	1.8 KM
MAYATU	2.92 KM

(AERIAL DISTANCE FROM SIDING)

LEGEND	
CONVEYOR	
COAL EVACUATION ROAD (LOADED)	
EMPTY COAL TRUCK ROAD	
VILLAGES	

Ref Toposheet No-F45B1(73E/1) & F45B5(73E/5)

	NTPC LIMITED
PROJECT PAKRI BARWADIH COAL MINING PROJECT	
TITLE	Plan showing the Distance from Banadag Siding to Villages
SCALE	1:8000
PLAN NO	
DATE	23.09.2020



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-3036797/2018/2054

Dated : 2018-12-22

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 2018-08-16 of NTPC LIMITED PAKRIBARWADIH COAL MINING PROJECT, Occupier Name :PARTHA MAZUMDER 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 Environmental Clearance [Environmental Clearance]issued by MoEF, New Delhi vide, Ref No. J-11015/692/2007-IA.II(M) Dated 19.05.2009.
 - (b) 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.
 - (c) The content of Consent to Establish (CTE), Ref No. 4763 Dated 18.12.2007.
 - (d) The content of Consent to operate (CTO),Ref. No. 1034 dated 21.12.2016 of this office.
 - (e) The content of Inspection Report (I/R), Ref No. 1001 dated 21.08.2018 of R O, R O-Cum-Lab, Hazaribagh.
 - (f) The content of letter issued by Department of Revenue and Land Reforms for acquisition of land i.e. in lease, Ref. No. 2322, dated. 19.07.2013.

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			
Before Expansion	47, 48, 49, 51, 52, 55, 56, Khata No. 47, 48, 49, 51, 52, 55, 56	3319.4 2 Ha	102413.64 Lacs	Coal- 15 MTPA	01.01.2019 to 31.12.2023

(A) Specific Conditions:

- (1) That, the occupier shall continuously transmit the online monitoring data of ambient air quality, stack emission and effluent quality to the server of the Board, if any time transmission of data is found discontinued consent to operate shall be revoked.
- (2) That, the occupier shall establish and operate well equipped environmental laboratory with facilities to monitor at least all regulatory parameters and duly accredited by NABL.
- (3) That , the occupier shall make proper arrangement for disposal of fly ash instead of its casual disposal in low lying area of own lease lands; In this regard unit shall submit concrete proposal to the Board within the consent period.
- (4) That, the occupier shall submit monthly report of evacuation of Ash pond to the Board and transport vehicle carrying Fly Ash must be fully covered and in no case there should be any spillage of Fly Ash.
- (5) That, the occupier shall submit the monthly report on compliance of CREP responsibility to the Board.
- (6) That, the occupier shall obtain Authorization under Hazardous Wastes Management Rules, 2016 and dispose of all Hazardous Waste as per the Rules.
- (7) That, the occupier shall ensure that no Fly ash laden air should go to the nearby village. There must be proper protection to villagers from fly ash laden air like three tier tree plantation, fine mesh net etc. Unit must report to the Board in this regard within two months.
- (8) That, the occupier shall submit effluent analysis report quarterly to the Board.
- (9) That, the occupier shall investigate the way of proper utilization of Fly ash and in this process he(they) shall make system of dry collection in place of wet collection. He (they) shall submit a proposal to the Board within the consent period with time bound programme.
- (10) That, the occupier shall complete the installation of online monitoring system in the effluent discharge line with its monitored data transmission to JSPC Board Server, failing which Consent to Operate order shall be revoked.
- (11) That, the occupier shall if be found violating the Consent to Operate at any point of time during inspection of the plant by the competent authority, the Consent to Operate shall be revoked as per provision of the acts.
- (12) That, the occupier shall provide Fly Ash for road construction projects / Public Works Department / manufacturing of ash based products/ use of soil conditioner in agriculture activity within a radius of three hundred kilometers.
- (13) That, the occupier shall upload on their website the details of stock of types of ash available with them along with the quantity of Fly Ash utilized at least once a month and shall install dedicated dry ash silos.
- (14) That, the occupier shall ensure utilization of Fly Ash as per the time frame fixed in the rule.

(15) That, the occupier shall submit annual implementation report/compliance report (for the period 1st April to 31st March) providing information about the compliance of provision in the notification by the 30th day of April, every year to SPCB, CPCB and the Concerned Regional Office of MOEF.

(16) That, the occupier shall this CTO is valid subject to validity of source of raw material, plan Eco friendly/environmental clearance, if applicable. In case of not obtaining/violating the applicable norms this CTO shall be treated as revoked automatically.

(17) That, this CTO is issued on the basis of information submitted by the unit. The CTO may automatically be revoked, if any wrong information will be found after that.

(18) That, the occupier shall construct ETP in servicing and maintenance of vehicle workshop and STP with residential area.

(19) That, the occupier shall submit half yearly compliance report of CTO and EC to the JSPC Board.

(20) That, the occupier shall do arrangement for water sprinkling and do tree plantation as per the requirement.

(21) That, the occupier shall submit online applications for renewal of consent under section 25 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 i.e. 31.12.2023 with documents showing compliance of all of the above conditions.

(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

Memo No. : JSPCB/HO/RNC/CTO-3036797/2018/2054

RAJEEV
LOCHAN
BAKSHI

Digitally signed by
RAJEEV LOCHAN
BAKSHI
Date: 2018.12.22
12:16:58 +05'30'

[Rajeev Lochan Bakshi]
Member Secretary

Dated : 2018-12-22

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.

RAJEEV
LOCHAN
BAKSHI

Digitally signed
by RAJEEV
LOCHAN BAKSHI
Date: 2018.12.22
12:17:19 +05'30'

[Rajeev Lochan Bakshi]
Member Secretary



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-2129164/2018/41 16/05/2018
2. Reference of application(No. and date): 2129164 27/01/2018
3. NTPC LTD - PBCMP of GROUP GENERAL MANAGER 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 GROUP GENERAL MANAGER, NTPC LTD - PBCMP, UJJWAL COMPLEX, PUGMILL ROAD, HAZARIBAGH JHARKHAND - 825301

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	Schedule I	PVC Drum	Used/spent oil- 90 KL/Annum
2	Schedule I	PVC Drum	Wastes/residues containing oil- 0.1 TPA

(1) The authorisation shall be valid for a period of 5 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 comply the provisions of the Environment Protection Act and Rules.
- (2) That, the authorization shall be produced at the time of inspection.
- (3) That, the occupier authorized shall not rent/sell or otherwise transport the H/W without obtaining prior permission of the Board.
- (4) That, any un-authorization change shall constitute a breach the authorization.
- (5) That, it is the duty of authorized person to take prior permission of the Board to close down the facility.
- (6) That, the renewal of authorization shall be made as laid down in the rules.
- (7) That, any other condition for compliance as per the guidelines issued by the MoEF for CPCB.
- (8) That, the occupier shall submit annual return for the financial year before 30th June, every year.
- (9) That, the occupier shall comply all the conditions.
- (10) That, the occupier shall submit quarterly and annual information on hazardous wastes consumed its source, products generated or resources conserved (specifying the details like type and quantity of resources conserved) to the concerned SPCB.
- (11) That, the occupier shall complied all directions given by standard operating and procedure.

**RAM PRAVESH
KUMAR**

Digitally signed by
RAM PRAVESH KUMAR
Date: 2018.05.16
10:50:01 +05'30'

Memo No:JSPCB/HO/RNC/HWM-
2129164/2018/41
Date: 16/05/2018

Ram Pravesh Kumar
Section Head, Hazaribagh

Copy To:

**NTPC LTD - PBCMP, GROUP GENERAL MANAGER, M/S NTPC LTD - PBCMP, UJJWAL
COMPLEX, PUGMILL ROAD,/ Regional Office, Hazaribagh for information & necessary action.**

**RAM PRAVESH
KUMAR**

Digitally signed by RAM
PRAVESH KUMAR
Date: 2018.05.16 10:50:30 +05'30'

**Ram Pravesh Kumar
Section Head, Hazaribagh**

हजारीबाग शिवपुर रेल परियोजना, हजारीबाग

प्रयोजन	अभिलेख सं०	ग्राम/थाना नं०	अधियाचना पत्रांक/ तिथि	अधियाचित रकवा	रेयती रकवा	पंचाट घोषित रकवा	भू-अर्जन की स्थिति													धारा 12 मुआवजा भुगतान नोटिस की तिथि	दखल कब्जा की तिथि	अभ्युक्ति				
							धारा-4 अधिसूचना				धारा-6 अधिघोषणा					धारा-7/17 स्वीकृति की तिथि		धारा-9 के तहत नोटिस की तिथि					प्राक्कलन स्वीकृति की तिथि		एवार्ड की तिथि एवं	
							पत्रांक एवं निर्गत तिथि	पेपर में प्रकाशन की तिथि	पाक्षिक सं० एवं गजट में प्रकाशन की तिथि	स्थानीय तामिला की तिथि	पत्रांक एवं निर्गत तिथि	पेपर में प्रकाशन की तिथि	पाक्षिक सं० एवं गजट में प्रकाशन की तिथि	स्थानीय तामिला की तिथि	धारा-7/17 स्वीकृति की तिथि	धारा-9 के तहत नोटिस की तिथि	प्राक्कलन स्वीकृति की तिथि	दिनांक	राशि				दिनांक	राशि		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22					
रेलवे लाईन निर्माण	10/03-04	बानादाग / 88	10.04.2003	24.648	21.300	21.300	135/ रा० 21.02.2004	02.03.2004	10/ 15.05.2004	13.07.2004	141/ रा० 21.02.2004	16.05.2004	11/ 17.05.2004	13.07.2004	506/ रा० 20.09.2004	29.11.2004	20.05.2006	04.07.2006	3500568	10.07.2006	28.06.2006					
	08/03-04	कटकमदा ग/ 87	21.05.2003	4.595	2.330	2.330	80/ रा० 05.02.2004	01.03.2004 03.03.2004	04/04.03.2004	03.07.2004	92/ रा० 05.02.2004	16.05.2004 17.05.2004	05/ 05.03.2004	03.07.2004	419/ रा० 28.07.2004	10.08.2004	08.12.2005	19.05.2006	309134	20.05.2006	25.05.2006					
	13/03-04	बांका / 89	10.04.2003	27.890	18.890	18.890	189/ रा० 18.03.2004	26.05.2004	10/15.05.2004	11.07.2004	190/ रा० 18.03.2004	05.06.2004	11/ 17.05.2004	14.07.2004	644/ रा० 13.12.2004	08.04.2005	18.12.2005	06.07.2006	2498766	11.07.2006	28.06.2006					
	12/03-04	डामोडीह / 122	03.03.2003	7.940	7.940	7.940	132/ रा० 21.02.2004	01.03.2004	10/15.05.2004	13.04.2004	137/ रा० 21.02.2004	17.05.2004 16.05.2004	11/ 17.05.2004	13.07.2004	645/ रा० 13.12.2004	13.01.2005	17.05.2006	15.06.2006	1716113	21.06.2006	28.06.2006					
	06/03-04	पसई / 126	07.04.2003	7.586	3.700	3.700	82/ रा० 05.02.2004	01.03.2004	04/04.03.2004	03.07.2004	85/ रा० 05.02.2004	16.05.2004 17.05.2004	05/ 05.03.2004	03.07.2004	417/ रा० 28.07.2004	10.08.2004	19.01.2006	25.03.2006	908954	25.03.2006	25.05.2006					
	05/03-04	सिमरिया / 96	21.05.2003	24.592	6.090	6.090	83/ रा० 05.02.2004	02.03.2004 01.03.2004	04/04.03.2004	05.07.2004	90/ रा० 05.02.2004	17.05.2004	05/ 05.03.2004	05.07.2004	413/ रा० 28.07.2004	10.08.2004	31.01.2006	03.05.2006	390049	03.05.2006	25.05.2006					
	07/03-04	तिलैया / 90	21.05.2003	11.223	0.090	0.090	79/ रा० 05.02.2004	01.03.2004 03.03.2004	04/04.03.2004	05.07.2004	89/ रा० 05.02.2004	16.05.2004	05/ 05.03.2004	05.07.2004	414/ रा० 28.07.2004	10.08.2004	08.12.2005	22.04.2006	17065	22.04.2006	25.05.2006					

प्रयोजन	अभिलेख सं०	ग्राम / थाना नं०	अधियाचना पत्रांक / तिथि	अधियाधित रकवा	रैयती रकवा	पंचाट घोषित रकवा	भू-अर्जन की स्थिति														धारा 12 मुआवजा भुगतान नोटिस की तिथि	दखल कब्जा की तिथि	अभ्युक्ति
							धारा-4 अधिसूचना				धारा-6 अधिघोषणा				धारा-7/17 स्वीकृति की तिथि	धारा-9 के तहत नोटिस की तिथि	प्राक्कलन स्वीकृति की तिथि	एवार्ड की तिथि एवं					
							पत्रांक एवं निर्गत तिथि	पेपर में प्रकाशन की तिथि	पाक्षिक सं० एवं गजट में प्रकाशन की तिथि	स्थानीय तागिला की तिथि	पत्रांक एवं निर्गत तिथि	पेपर में प्रकाशन की तिथि	पाक्षिक सं० एवं गजट में प्रकाशन की तिथि	स्थानीय तागिला की तिथि				दिनांक	राशि				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
रेलवे लाईन निर्माण	04/03-04	बेन्दी / 97	21.05.2003	52.081	3.770	3.770	81/ रा० 05.02.2004	02.03.2004 03.03.2004	04/04.03.2004	04.07.2004	87/ रा० 05.02.2004	16.05.2004	05/ 05.03.2004	04.07.2004	416/ रा० 28.07.2004	10.08.2004	13.06.2006	17.06.2006	773644	17.06.2006	26.06.2006		
	01/03-04	सिरसी II / 121	24.02.2002	5.422	5.770	5.770	8/ रा० 07.01.2004	16.01.2004	04/04.03.2004	18.12.2004	17/ रा० 07.01.2004	23.01.2004	05/ 05.03.2004	18.12.2004	45/ रा० 20.01.2005	28.03.2005	08.12.2005	15.04.2006	1471765	15.04.2006			
	02/08-09	डामोडीह / 122	349/ 18.03.2008	3.700	3.700	3.700	832/ रा० 11.11.2008	14.12.2008	17/30.12.2008	08.01.2009	834/ रा० 11.11.2008	26.12.2008	18/ 30.12.2008	08.01.2009	99/ रा० 22.02.2009	25.07.2009	19.03.2010	30.04.2010	2450720	30.04.2010			
	02/03-04	कुद 1 / 143	80/ 31.01.2003	1.700	1.540	1.540	77/ रा० 05.02.2004	01.03.2004 03.03.2004	04/04.03.2004	07.07.2004	91/ रा० 05.02.2004	16.05.2004	05/ 05.03.2004	07.07.2004	415/ रा० 28.07.2004	10.08.2004	08.12.2005	12.04.2006	739933	12.04.2006	25.05.2006		
	11/03-04	रेवाली भाग- II / 124	80/ 05.02.2003	4.160	4.090	4.090	134/ रा० 21.02.2004	01.03.2004	10/10.05.2004	12.07.2004	136/ रा० 21.02.2004	18.05.2004 16.05.2004	11/ 17.05.2004	12.07.2004	507/ रा० 20.09.2004	07.10.2004	08.12.2005	13.04.2006	1243166	13.04.2006	25.05.2006		
	02/2009-10	मसरातु भाग- II / 125	167/ 26.12.2009	0.730	0.150	0.150	908/ रा० 01.12.2010	23.02.2011	08/04.06.2011	04.08.2011	915/ रा० 01.12.2010	23.02.2011	09/ 04.06.2011	04.08.2011	837/ रा० 01.10.2011	10.11.2011	10.05.2012	16.05.2012	282002	16.05.2012			
	09/2003-04	मसरातु भाग I / 125	69/ 02.12.2003	11.550	11.600	11.600	133/ रा० 21.02.2004	01.03.2004	10/15.05.2004	12.07.2004	140/ रा० 21.02.2004	17.05.2004	11/ 17.05.2004	12.07.2004	505/ रा० 20.09.2004	22.11.2004	17.05.2006	15.06.2006	2732181	15.06.2006	28.06.2006		
कुल				187.82	90.96	90.96																	



भारत सरकार

कार्यालय - वन प्रमंडल पदाधिकारी, ANNEXURE-VIII
हजारीबाग पश्चिमी वन प्रमंडल, वन भवन, हजारीबाग

06546-222339, Fax no.06546-222339, Email- dfo.hazaribagwest@rediffmail.com

सेवा में, पत्रांक: 3520, दिनांक: 22/7/17

रविन्द्र कुमार,
यातायात निरीक्षक (परि०),
पूर्व मध्य रेलवे, हजारीबाग टाउन।

विषय:- वन भूमि से दूरी संबंधी जांच प्रतिवेदन।

प्रसंग:- आपका पत्रांक ECR/Banadag/CTE/2017 दिनांक 06.07.2017।

महाशय,

उपर्युक्त विषयक प्रसांगिक पत्र के संदर्भ में सूचित करना है कि आपके द्वारा तीन गांव यथा मौजा कटकमदाग, बानादाग एवं बांका के भिन्न-भिन्न प्लॉटों से वन/वनभूमि की दूरी की मांग की गई है जो निम्नवत् है :-

मौजा का नाम	थाना/थाना संख्या	प्लॉट संख्या	अधिसूचित वन से दूरी मीटर में	सीमांकित वन से दूरी मीटर में	अभ्युक्ति
कटकमदाग	हजारीबाग-87	3695	450	500	प्रमण्डलीय नक्शा में मिलान करने के पश्चात प्लॉट नं० 95 के स्थान पर 3695 पाया गया है।
		3703	500	550	-
		3726	480	530	-
बानादाग	हजारीबाग-88	4039	340	450	-
		3968	335	440	-
		3914	170	350	प्रमण्डलीय नक्शा में मिलान करने के पश्चात प्लॉट नं० 3917 के स्थान पर 3914 वन भूमि से नजदीक रहने के कारण प्लॉट 3914 से वन भूमि की दूरी दिया गया है।
बांका	हजारीबाग-89	3121	अधिसूचित वन भूमि नहीं है।	485	प्रमण्डलीय नक्शा में मिलान करने के पश्चात प्लॉट नं० 21 के स्थान पर 3121 पाया गया है।

	2886	अधिसूचित वन भूमि नहीं है।	350	प्रमण्डलीय नक्शा में मिलान करने के पश्चात प्लॉट नं० 87 के स्थान पर प्लॉट संख्या 2887 होगा। परन्तु प्लॉट संख्या 2886 वन भूमि से नजदीक होने के कारण प्लॉट संख्या 2886 से वन भूमि की दूरी दिया गया है।
	2597	अधिसूचित वन भूमि नहीं है।	375	—

साथ ही आवेदित स्थल के भूमि किस्म की जानकारी भी संबंधित अंचलाधिकारी से प्राप्त कर ली जाये, जिससे कि माननीय सर्वोच्च न्यायालय द्वारा सिविल वाद संख्या 202/95 दिनांक 12.12.1996 में पारित आदेश की अवहेलना न हो। आवेदित स्थल का वन्य प्राणी आश्रयणी/नेशनल पार्क से दूरी के संबंध में वन प्रमण्डल पदाधिकारी, वन्य प्राणी प्रमण्डल से सूचना प्राप्त करने के उपरांत ही आवश्यक निर्णय आपके स्तर से लिया जाना उचित होगा। पर्यावरण, वन एवं मौसम परिवर्तन मंत्रालय, भारत सरकार, वन्य प्राणी प्रभाग, नई दिल्ली के द्वारा दिये गये निर्देशों के आलोक में आवेदित स्थल Eco Sensitive Zone में पड़ता है या नहीं की जानकारी वन प्रमण्डल पदाधिकारी, वन्य प्राणी प्रमण्डल, हजारीबाग से प्राप्त की जा सकती है। तत्पश्चात ही किसी तरह का गैर-वानिकी कार्य करना उचित होगा। रेलवे साईडिंग के निर्माण की स्विकृति मिल जाने के उपरांत प्रयोक्ता संस्थान को रेलवे साईडिंग के चारों दिशा में (पूरे लंबाई एवं चौड़ाई में) सात ROW में वृक्षारोपण कर Shelter Belt का निर्माण करना होगा।
अनु०-यथोक्त।

विश्वासभाजन

वन प्रमण्डल पदाधिकारी,
हजारीबाग पश्चिमी प्रमण्डल



GOVERNMENT OF INDIA
 MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
 REGIONAL OFFICE (RANCHI)
 BUNGALOW NO.A-2, SHYAMLI COLONY, RANCHI - 834002
 TEL: 0651-2410007, 2410002, E-mail: ro.ranchi-mef@gov.in



जहाँ है हरियाली ।
 वहाँ है खुशहाली ॥

No. FP/JH/RAIL/16048/2012 /518
 To

Dated 26th May, 2016

The Principal Secretary,
 Department of Forests and Environment,
 Government of Jharkhand,
 Nepal House, Ranchi.

Sub: Diversion of 6.291 ha of forest land for construction of Railway Siding at Bandag Railway Station in Hazaribagh district of Jharkhand.

Sir,

I am directed to refer to letter No.Van Bhumi-06/2015-4363/Va.Pa. dated 12.8.2015 and letter No. Van Bhumi-06/2015-2044/Va.Pa. dated 26.4.2016 of the State Government on the above mentioned subject seeking prior approval of the Ministry of Environment, Forest and Climate Change under section 2 of Forest (Conservation) Act, 1980.

After due consideration of the proposal of the State Government and on the basis of decision of the Regional Empowered Committee in the meeting held on 29.1.2016, the Central Government, hereby, conveys "in-principle" approval for diversion of 6.291 ha of forest land for construction of Railway Siding at Bandag Railway Station in Hazaribagh district of Jharkhand, subject to the fulfillment of the following conditions.

1. Legal status of forest land proposed for diversion shall remain unchanged.
2. The State Govt. shall charge the Net Present Value (NPV) of forest area proposed to be diverted under this proposal from the user agency as per the Orders of the Hon'ble Supreme Court of India dated 28.03.2008, 24.04.2008 and 09.05.2008 in Writ Petition (Civil) No.202/1995 and the guidelines issued by this Ministry vide its letter No. 5-3/2007-FC dated 05.02.2009 in this regard.
3. Additional amount of NPV of the diverted forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India, shall be charged by the State Govt. from the user agency.
4. Compensatory Afforestation over the degraded forest land twice in extent to the forest land being diverted shall be raised and maintained by the State Forest Department at the cost of the user agency. The user agency shall

Sulta
 26/5/16

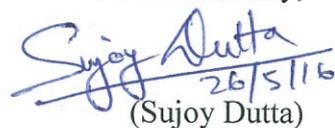
transfer the cost of plantation and its maintenance for 10 years (revised as on the date to incorporate the existing wage structure) to State Forest Department.

5. The State Government shall deposit Net Present Value and all other funds with the Ad-hoc Body of Compensatory Afforestation Fund Management and Planning Authority (CAMPA), in SB Account No.**SB01025212** of Corporation Bank, CGO Complex, Phase-1, Lodhi Road, New Delhi – 110 003 (RTGS/IFSC No.**CORP0000371**) or in SB Account No.**344902010105420** of Union Bank of India, Sunder Nagar, New Delhi – 110 003 (RTGS/IFSC No.**UBIN0534498**) through the RTGS/NEFT mode, as per the instruction communicated vide letter No.12-2/2010-CAMPA dated 13.05.2011 and dated 24.06.2011.
6. State Government shall upload the details of compensatory levies demanded and received from the project proponent in the Ministry website and submit compliance in this regard.
7. Felling of trees on the forest land being diverted shall be reduced to the bare minimum and the trees should be felled under strict supervision of the State Forest Department.
8. The boundary of the forest land proposed for diversion, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, DGPS coordinates, forward and back bearing and distance from adjoining pillars etc.
9. No labour camp shall be established on the forest land.
10. Earth or any other material shall not be brought from and debris resulting during construction shall not be disposed of in the adjoining forest area by the user agency.
11. It will be the responsibility of the User Agency to ensure that the labourers, staff engaged in construction activity do not damage the nearby forest flora and fauna.
12. The lay out plan of the proposed forest land shall not be changed without prior approval of the Ministry of Environment, Forests and Climate Change.
13. The forest land proposed for diversion shall under no circumstances be transferred to any other agency, department or person without prior approval of the Ministry of Environment, Forests and Climate Change.

14. The forest land shall not be used for any purpose other than that specified in the proposal.
15. The user agency and the State Government shall ensure compliance of provisions of all the Acts, Rules, Regulations and Guidelines, for the time being in force, which are applicable to the project.
16. Any other condition that the Ministry of Environment, Forest and Climate Change, State Government may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied by the user agency.

After receipt of the compliance report on fulfillment of the conditions as stipulated above, from the State Government, formal approval will be issued in this regard under Section 2 of Forest (Conservation) Act, 1980. **Transfer of forest land to user agency should not be effected by the State Government till formal order approving diversion of forest land is issued by the Central Government.**

Yours faithfully,

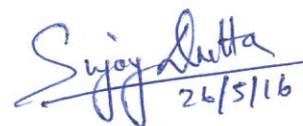

26/5/16
(Sujoy Dutta)

Technical Officer (Forestry)

O/C

Copy to:-

1. The Director, RO(HQ), Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110 003.
2. The Principal Chief Conservator of Forests, Forest Department, Govt. of Jharkhand, Doranda, Ranchi.
3. The PCCF-cum-Nodal Officer, Forest Department, Govt. of Jharkhand, Doranda, Ranchi.
4. The Divisional Forest Officer, Hazaribag West Forest Division, Hazaribag.
5. The AGM (Project), NTPC Ltd., Hazaribag, Jharkhand.
6. Guard File.


26/5/16

Technical Officer (Forestry)

O/C



Trucks are covered with tarpaulins for prevention of spillage and generation of dust.





**NTPC Limited**

(A Government of India Enterprise)

SSC - Coal Mining(Ranchi)**Silver Ferns, Kilburn Colony Hinoo , Ranchi****Ranchi****Jharkhand- 834002, India****Telephone No. : Fax No. :****Service Purchase Order****CIN No. : L40101DL1975GOI007966****Purchase Order No. : 5500036421-025-1074 Date : 10.07.2020 (version : 0)****To**

SANJAY KUMAR
AT-KHARANTI
PO-GOSAIBALIA
HAZARIBAG
Jharkhand
India - 825301
Tel: 9470345849

Vendor Code : 1112351**Subject:** : Providing and fixing of permanent framed Wind screen at Banadag Railway Siding of PBCMP.**NIT NO.** : 9900195023/025/1074 Dated 12.02.2020**Your Offer No.** : Your online submitted**Your Reference** :**Our Reference** : NTPC Online bid invited vide Tender ID: 2020_NTPC_31583_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 03.06.2020 and confirm having awarded on you the work of Providing and fixing of permanent framed Wind screen at Banadag Railway Siding of PBCMP. of total value INR 27,037,273.99 (Rupee TWO CRORE SEVENTY LAKH THIRTY-SEVEN THOUSAND TWO HUNDRED SEVENTY-THREE POINT NINETY-NINE ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 15.07.2020 to 14.05.2021. 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 (Civil) shall be EIC for this work.

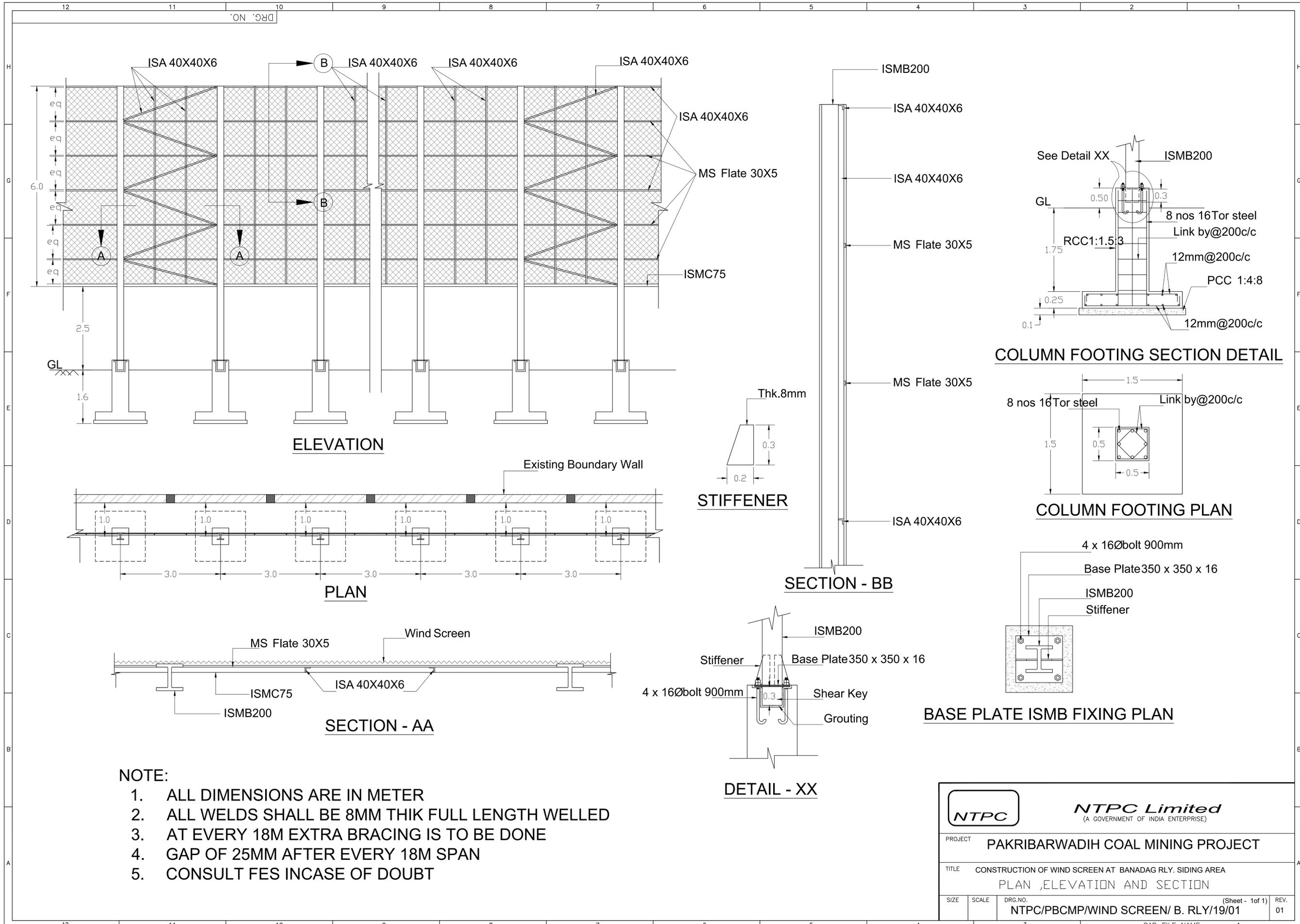
This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date 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.

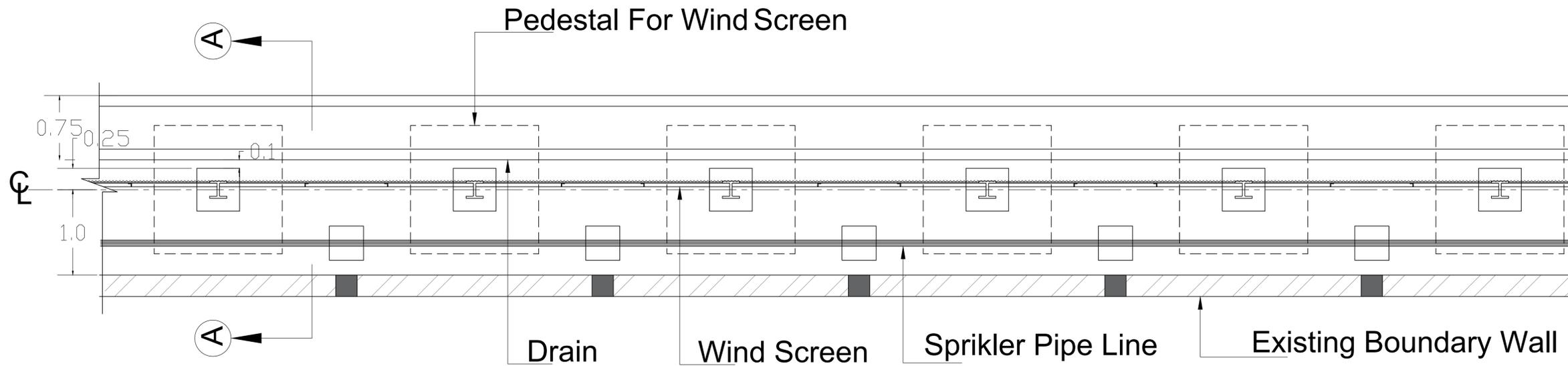
Pranay Sharma
Sr. Manager (C&M)

Enclosures :

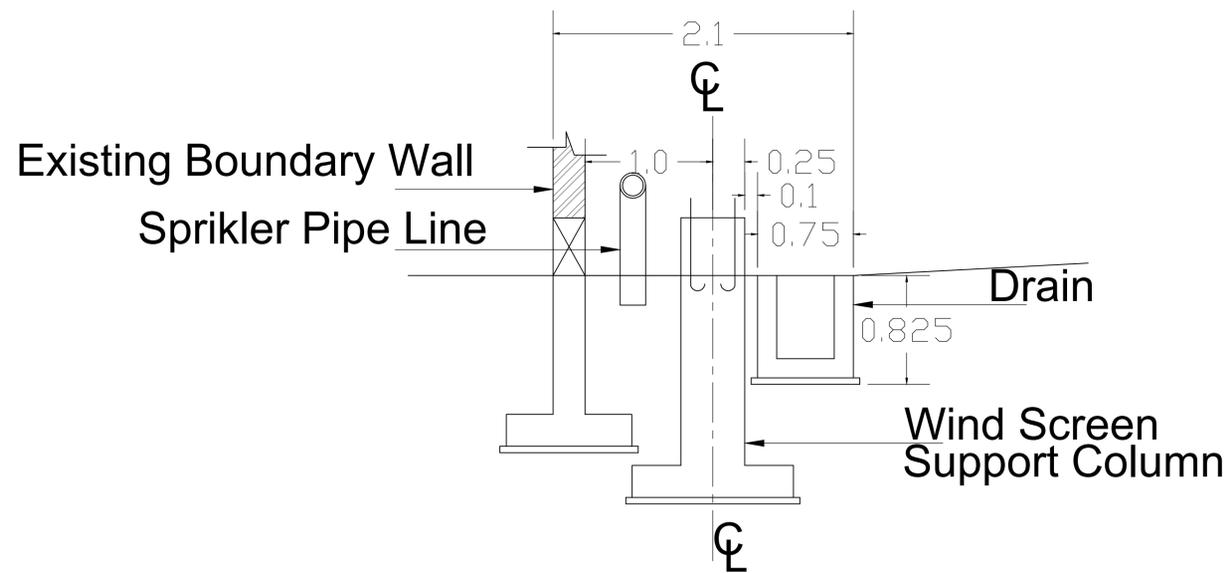


- NOTE:**
1. ALL DIMENSIONS ARE IN METER
 2. ALL WELDS SHALL BE 8MM THIK FULL LENGTH WELLED
 3. AT EVERY 18M EXTRA BRACING IS TO BE DONE
 4. GAP OF 25MM AFTER EVERY 18M SPAN
 5. CONSULT FES INCASE OF DOUBT

		NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE)	
TITLE CONSTRUCTION OF WIND SCREEN AT BANADAG RLY. SIDING AREA			
PLAN ,ELEVATION AND SECTION			
SIZE	SCALE	DRG.NO.	REV.
		NTPC/PBCMP/WIND SCREEN/ B. RLY/19/01	(Sheet - 1of 1) 01
CAD FILE NAME : 1			



LOCATION PLAN FOR (BANADAG RLY. SIDING)



SECTION - AA

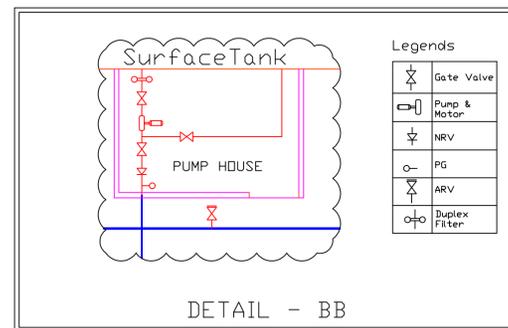
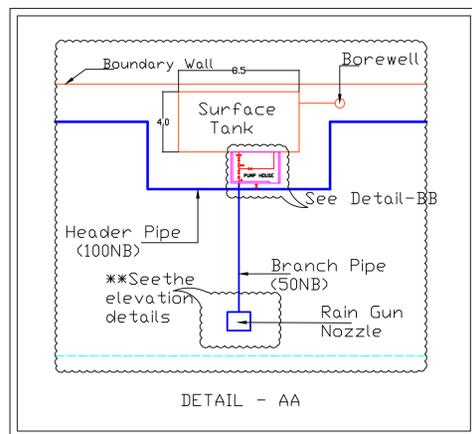
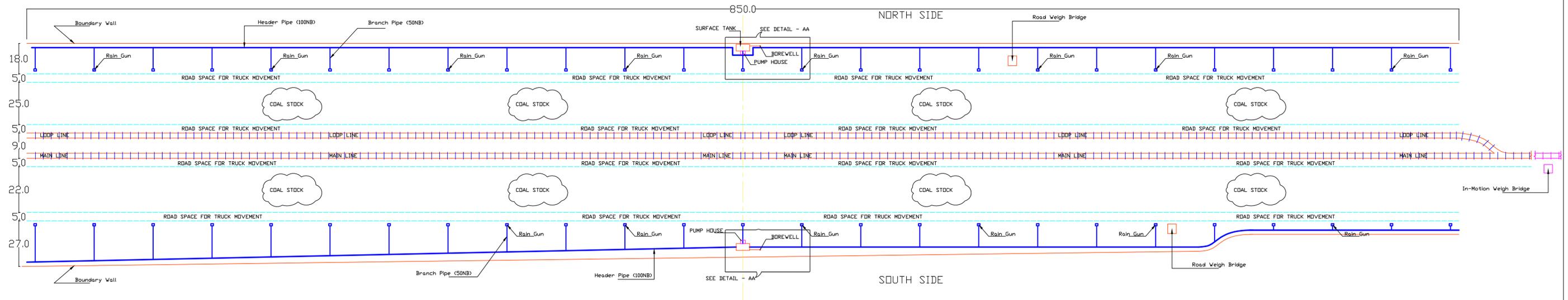
1. Header Pipe of Sprinkling System
2. Foundation Of Wind Screen
3. Drainage System
4. Foundation of wind screen should be preferably put between the foundation of boundary wall to avoid overlapping

NOTE: Deviation can be made as per site condition in consultation with FES.

		NTPC Limited <small>(A GOVERNMENT OF INDIA ENTERPRISE)</small>	
PROJECT		PAKRIBARWADIH COAL MINING PROJECT	
TITLE		CONSTRUCTION OF WIND SCREEN AT BANADAG RLY. SIDING AREA LOCATION PLAN	
SIZE	SCALE	DRG.NO.	(Sheet - 1of 1) REV.

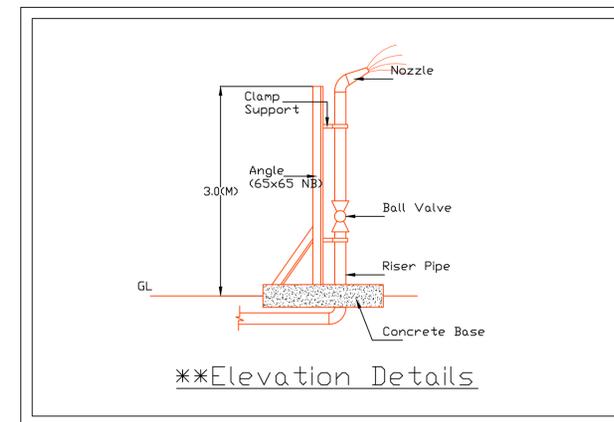
ANNEXURE-XII

LAYOUT OF SPRINKLER SYSTEM AT BANADAG RAILWAY SIDING



Legends

	Gate Valve
	Pump & Motor
	NRV
	PG
	ARV
	Duplex Filter



ALL DIMENSION ARE IN METER

Statutory Compliance Status at Banadag Railway Siding.

✚ **Continuous online PM₁₀ analyzer Monitoring System:** Online data being send to JSPCB website.



Noise Monitoring

Noise monitoring is carried out in the railway siding twice a month.



Rain gun Sprinkler system at Banadag Railway siding

Rain gun Sprinkling Length: 1.8 km.
Rain gun installed both side of railway track.
Water Consumption: 600 Ltr/minute
Water throws: 35 - 45 m distance
Water throws Angle -180 Degree



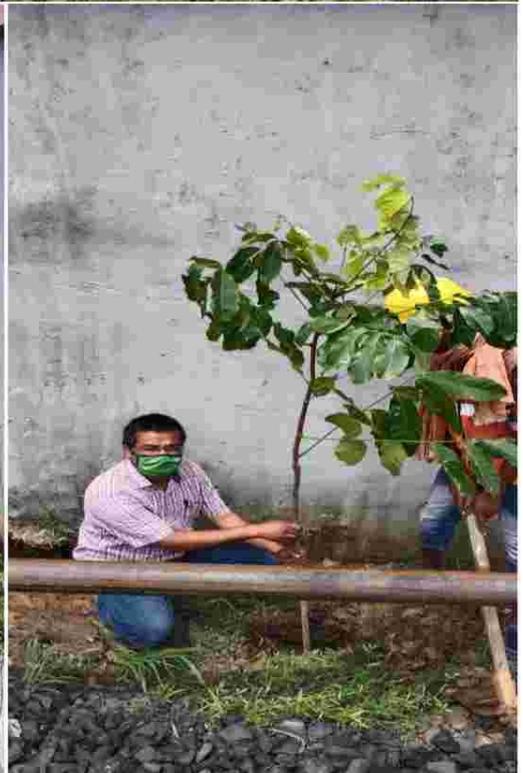
Wind Control Wall & Green Net shed



Plantation at the Banadag Railway Siding

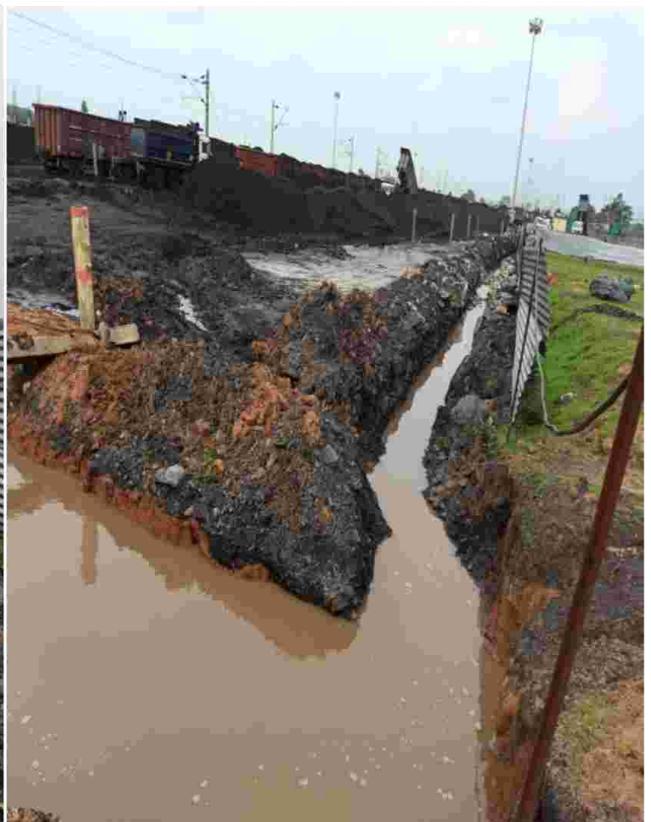
Total 1200 nos. of plants planted at Banadag Railway Siding.





Construction of Settling Pond & Garland Drains.





**NTPC Limited**

(A Government of India Enterprise)

SSC - Coal Mining(Ranchi)**Silver Ferns, Kilburn Colony Hinoo , Ranchi****Ranchi****Jharkhand- 834002, India****Telephone No. : Fax No. :****Service Purchase Order****CIN No. : L40101DL1975GOI007966****Purchase Order No. : 5500036120-025-1074 Date : 26.05.2020 (version : 0)****To**

SANJAY KUMAR
AT-KHARANTI
PO-GOSAIBALIA
HAZARIBAG
Jharkhand
India - 825301
Tel: 9470345849

Vendor Code : 1112351

Subject: : Construction of garland drain, water harvesting system and other miscellaneous civil works at Banadag Rly siding.

NIT NO. : 9900194833 Dated

Your Offer No. : Your online bid

Your Reference :

Our Reference : Our online tender with Tender ID: 2020_NTPC_31567_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 and confirm having awarded on you the work of Construction of garland drain, water harvesting system and other miscellaneous civil works at Banadag Rly siding. of total value INR 10,103,729.93 (Rupee ONE CRORE ONE LAKH THREE THOUSAND SEVEN HUNDRED TWENTY-NINE POINT NINETY-THREE ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 11.06.2020 to 10.04.2021. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. AGM (ME) shall be EIC for this work.

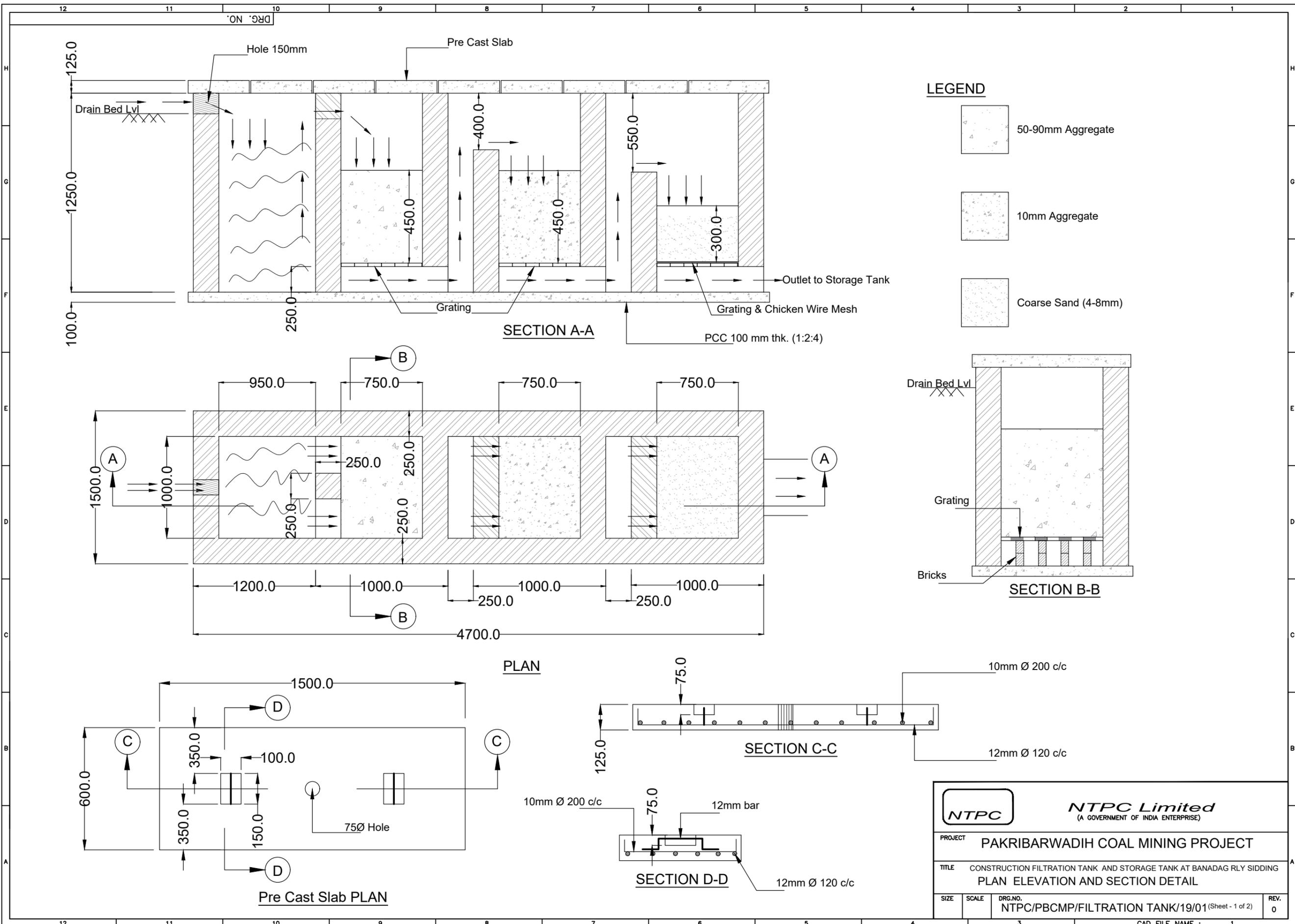
This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date 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.

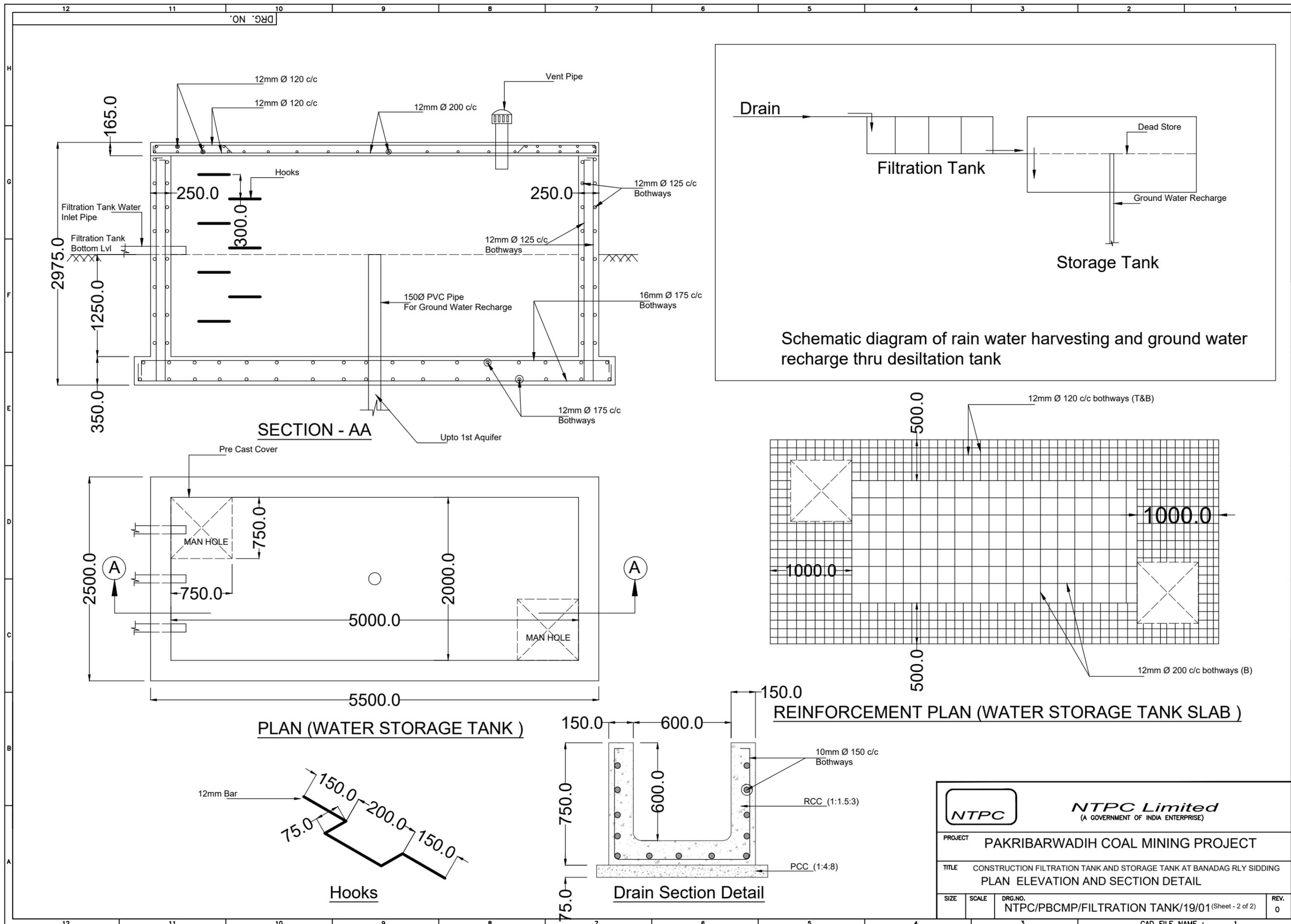
We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,
For & on behalf of NTPC Limited.

Pranay Sharma
Sr. Manager (C&M)

Enclosures :





		NTPC Limited (A GOVERNMENT OF INDIA ENTERPRISE)	
TITLE	CONSTRUCTION FILTRATION TANK AND STORAGE TANK AT BANADAG RLY SIDING		
	PLAN ELEVATION AND SECTION DETAIL		
SIZE	SCALE	DRG.NO.	REV.
		NTPC/PBCMP/FILTRATION TANK/19/01 (Sheet - 2 of 2)	0
CAD FILE NAME :			

Photographs Showing Roof Top Rain Water Harvesting at Banadag Railway Siding





BANADAG RAILWAY SIDING (July-2020)											
BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)					
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co
01.07.2020	61.8	32.3	10.5	19.1	BDL	01.07.2020	65.2	34.9	11.6	20.5	BDL
05.07.2020	63.5	33.6	12.3	22.2	BDL	05.07.2020	67.8	35.2	13.4	25.6	BDL
12.07.2020	65.8	34.2	13.6	25.1	BDL	12.07.2020	62.3	32.9	15.3	27.2	BDL
16.07.2020	68.6	35.2	16.9	31.4	BDL	16.07.2020	64.2	33.4	18.1	35.6	BDL
19.07.2020	70.2	36.3	17.7	34.5	BDL	19.07.2020	68.3	35.9	19.3	36.7	BDL
21.07.2020	67.7	35.9	18.1	33.5	BDL	21.07.2020	65.3	34.1	16.4	31.7	BDL
27.07.2020	64.1	33.7	17.3	33.5	BDL	27.07.2020	67.6	36.2	15.8	29.3	BDL
30.07.2020	63.6	34.8	18.2	34.6	BDL	30.07.2020	65.9	33.4	16.6	31.2	BDL
Max	70.2	36.3	18.2	34.6	BDL	Max	68.3	36.2	19.3	36.7	BDL
Min	61.8	32.3	10.5	19.1	BDL	Min	62.3	32.9	11.6	20.5	BDL
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)					
Date	Unit		Result			Date	Unit		Result		
12.07.2020	µg/m3		242			12.07.2020	µg/m3		215		
27.07.2020	µg/m3		238			27.07.2020	µg/m3		209		
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)					
Date	Description Noise Level dB(A)	Noise Level		Day	Night	Date	Description Noise Level dB(A)	Noise Level		Day	Night
		Day	Night					Day	Night		
05.07.2020	Average	63	56.8			19.07.2020	Average	67.3	59.7		
	Maximum	69.7	62.4				Maximum	70.4	62.6		
	Minimum	56.3	51.3				Minimum	64.2	56.8		
	Leq db(A)	67.5	60.1				Leq db(A)	68.7	60.3		

BANADAG RAILWAY SIDING (June-2020)											
BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)					
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co
03.06.2020	65.2	34.8	16.6	31.7	BDL	03.06.2020	68.5	36.2	4.9	25.7	BDL
07.06.2020	63.2	32.4	15.4	28.5	BDL	07.06.2020	67.3	35.5	17.6	31.4	BDL
10.06.2020	65.1	33.6	16.4	29.6	BDL	10.06.2020	66.9	34.7	18.6	32.5	BDL
14.06.2020	68.3	35.6	17.5	32.1	BDL	14.06.2020	66.1	34.9	19.3	36.5	BDL
17.06.2020	70.4	37.1	16.3	30.6	BDL	17.06.2020	69.6	36.9	18.3	34.7	BDL
20.06.2020	68.9	36.3	19.9	36.2	BDL	20.06.2020	67.5	35.1	20.4	38.8	BDL
25.06.2020	69.2	65.8	18.4	24.7	BDL	25.06.2020	65.4	34.1	15.9	29.3	BDL
28.06.2020	68.8	36.4	19.2	35.4	BDL	28.06.2020	64.1	33.4	17.5	33.8	BDL
Max	70.4	65.8	19.9	36.2	BDL	Max	69.6	36.9	20.4	38.8	BDL
Min	63.2	32.4	15.4	24.7	BDL	Min	64.1	33.4	4.9	25.7	BDL
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)					
Date	Unit		Result			Date	Unit		Result		
12.06.2020	µg/m3		255			12.06.2020	µg/m3		237		
26.06.2020	µg/m3		224			26.06.2020	µg/m3		215		
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)					
Date	Description Noise Level dB(A)	Noise Level		Date	Description Noise Level dB(A)	Noise Level					
		Day	Night			Day	Night				
15.06.2020	Average	66.2	59.2	28.06.2020	Average	67.9	59.9				
	Maximum	70.6	66.1		Maximum	70.3	62.7				
	Minimum	61.9	52.3		Minimum	65.6	57.1				
	Leq db(A)	68.4	64.2		Leq db(A)	68.2	60.3				

BANADAG RAILWAY SIDING (May-2020)											
BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)					
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co
02.05.2020	68.4	36.5	15.8	28.1	BDL	02.05.2020	66.3	35.6	16.1	30.3	BDL
06.05.2020	65.3	34.8	14.6	26.2	BDL	06.05.2020	67.8	39.1	18.3	32.4	BDL
10.05.2020	69.1	38.4	17.7	32.9	BDL	10.05.2020	68.9	37.2	15.4	29.5	BDL
13.05.2020	65.1	34.4	19.9	38.2	BDL	13.05.2020	68.5	39.2	18.3	37.5	BDL
18.05.2020	69.1	37.6	17.7	33.6	BDL	18.05.2020	68.3	35.7	15.2	28.9	BDL
22.05.2020	69.9	39.6	18.3	34.6	BDL	22.05.2020	70.2	39.5	17.2	32.8	BDL
26.05.2020	68.2	30.1	19.4	36.2	BDL	26.05.2020	65.5	28.5	16.7	31.3	BDL
30.05.2020	69.6	36.4	18.3	34.6	BDL	30.05.2020	63.7	32.5	15.3	27.1	BDL
Max	69.9	39.6	19.9	38.2	BDL	Max	70.2	39.5	18.3	37.5	BDL
Min	65.1	30.1	14.6	26.2	BDL	Min	63.7	28.5	15.2	27.1	BDL
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)					
Date	Unit	Result				Date	Unit	Result			
12.05.2020	µg/m ³	282				13.05.2020	µg/m ³	247			
24.05.2020	µg/m ³	261				25.05.2020	µg/m ³	258			
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)					
Date	Description Noise Level dB(A)	Noise Level		Date	Description Noise Level dB(A)	Noise Level					
		Day	Night			Day	Night				
19.05.2020	Average	68.2	62.8	31.05.2020	Average	67.4	64.1				
	Maximum	71.6	67.4		Maximum	70.8	66.9				
	Minimum	64.8	58.2		Minimum	64.1	61.3				
	Leq db(A)	69.3	65.9		Leq db(A)	68.6	64.7				

BANADAG RAILWAY SIDING (April-2020)											
BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)					
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co
02.04.2020	62.4	39.2	13.6	25.9	BDL	02.04.2020	64.9	40.1	10.6	19.3	BDL
05.04.2020	67.3	35.7	11.4	20.1	BDL	05.04.2020	69.2	37.7	12.8	24.3	BDL
09.04.2020	64.9	33.6	13.8	24.3	BDL	09.04.2020	66.7	34.9	15.7	28.2	BDL
13.04.2020	68.7	35.3	14.6	26.1	BDL	13.04.2020	65.7	33.9	12.6	22.2	BDL
17.04.2020	67.5	35.9	12.4	23.5	BDL	17.04.2020	69.3	37.2	14.1	26.8	BDL
21.04.2020	69.3	37.1	14.8	27.2	BDL	21.04.2020	71.3	37.8	12.6	23.8	BDL
25.04.2020	68.5	35.8	13.9	23.6	BDL	25.04.2020	69.9	37.9	15.3	27.6	BDL
28.04.2020	66.3	36.8	14.2	26.9	BDL	28.04.2020	68.1	38.7	16.3	31.6	BDL
Max	69.3	39.2	14.8	27.2	BDL	Max	71.3	40.1	16.3	31.6	BDL
Min	62.4	33.6	11.4	20.1	BDL	Min	64.9	33.9	10.6	19.3	BDL
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)					
Date	Unit		Result			Date	Unit		Result		
07.04.2020	µg/m3		256			08.04.2020	µg/m3		229		
23.04.2020	µg/m3		268			24.04.2020	µg/m3		247		
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)					
Date	Description Noise Level dB(A)	Noise Level		Date	Description Noise Level dB(A)	Noise Level					
		Day	Night			Day	Night				
14.04.2020	Average	64.2	56.9	28.04.2020	Average	68.9	61.6				
	Maximum	70.3	61.3		Maximum	71.1	63.9				
	Minimum	58.2	52.6		Minimum	66.7	59.4				
	Leq db(A)	68.9	59.3		Leq db(A)	69.4	61.5				

BANADAG RAILWAY SIDING (March-2020)													
BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)							
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co		
Due to covid reason monitoring not be done at banadag railway siding.						Due to covid reason monitoring not be done at banadag railway siding.							
Max	0.0	0.0	0.0	0.0	BDL	Max	0.0	0.0	0.0	0.0	BDL		
Min	0.0	0.0	0.0	0.0	BDL	Min	0.0	0.0	0.0	0.0	BDL		
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)							
Date	Unit		Result			Date	Unit		Result				
Due to covid reason monitoring not be done at banadag railway siding.						Due to covid reason monitoring not be done at banadag railway siding.							
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)							
Date	Description Noise Level dB(A)	Noise Level						Date	Description Noise Level dB(A)	Noise Level			
		Day	Night			Day	Night						
Due to covid reason monitoring not be done at banadag railway siding.						Due to covid reason monitoring not be done at banadag railway siding.							

BANADAG RAILWAY SIDING (February-2020)											
BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)					
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co
02.02.2020	79.2	40.2	17.8	33.6	BDL	02.02.2020	76.3	39.8	19.1	34.4	BDL
06.02.2020	78.8	40.6	18.5	35.2	BDL	06.02.2020	79.7	41.3	16.6	31.5	BDL
10.02.2020	76.5	39.7	19.2	37.1	BDL	10.02.2020	74.8	38.4	17.6	34.2	BDL
14.02.2020	78.1	40.1	17.4	32.6	BDL	14.02.2020	75.6	38.8	15.2	28.4	BDL
18.02.2020					BDL	18.02.2020	78.3	40.6	14.2	27.5	BDL
22.02.2020	77.3	39.9	17.2	32.8	BDL	22.02.2020	75.6	38.4	18.2	34.7	BDL
25.02.2020	79.3	41.8	16.4	31.2	BDL	25.02.2020	76.6	39.5	18.3	34.9	BDL
28.02.2020	78.6	40.2	15.4	29.7	BDL	28.02.2020	80.4	41.2	14.5	28.6	BDL
Max	79.3	41.8	19.2	37.1	BDL	Max	80.4	41.3	19.1	34.9	BDL
Min	76.5	39.7	15.4	29.7	BDL	Min	74.8	38.4	14.2	27.5	BDL
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)					
Date	Unit		Result			Date	Unit		Result		
08.02.2020	µg/m3		255			09.02.2020	µg/m3		213		
22.02.2020	µg/m3		253			23.02.2020	µg/m3		220		
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)					
Date	Description Noise Level dB(A)	Noise Level		Date	Description Noise Level dB(A)	Noise Level					
		Day	Night			Day	Night				
04.02.2020	Average	66.9	64.3	28.02.2020	Average	68	64.9				
	Maximum	71.4	68.9		Maximum	70.3	67.4				
	Minimum	62.5	59.8		Minimum	65.8	62.5				
	Leq db(A)	69.8	66.2		Leq db(A)	68.4	65.1				

BANADAG RAILWAY SIDING (January-2020)

BANADAG RAILWAY SIDING (3.0 METER)						BANADAG RAILWAY SIDING (10 METER)					
Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co	Date	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co
05.01.2020	78.2	39.6	14.1	25.8	BDL	05.01.2020	77.8	38.3	15.6	28.2	BDL
11.01.2020	76.3	38.7	16.8	32.1	BDL	11.01.2020	79.4	39.5	13.7	25.2	BDL
14.01.2020	79.3	40.1	12.8	22.4	BDL	14.01.2020	78.9	39.3	14.6	27.5	BDL
17.01.2020	78.5	39.1	14.3	27.9	BDL	17.01.2020	76.6	39.2	12.9	22.3	BDL
21.01.2020	74.1	38.5	17.2	31.8	BDL	21.01.2020	73.4	36.5	16.2	30.8	BDL
24.01.2020	79.2	40.8	13.5	26.1	BDL	24.01.2020	76.8	39.7	15.4	28.5	BDL
28.1.2020	80.6	41.2	17.9	35.5	BDL	28.01.2020	81.2	40.3	14.8	29.2	BDL
30.01.2020	75.7	40.5	13.2	25.9	BDL	30.01.2020	77.3	37.6	15.8	29.4	BDL
Max	80.6	41.2	17.9	35.5	BDL	Max	81.2	40.3	16.2	30.8	BDL
Min	74.1	38.5	12.8	22.4	BDL	Min	73.4	36.5	12.9	22.3	BDL
BANADAG RAILWAY SIDING (SPM)						BANADAG RAILWAY SIDING (SPM)					
Date	Unit		Result			Date	Unit		Result		
12.01.2020	µg/m3		247			13.01.2020	µg/m3		217		
22.01.2020	µg/m3		256			23.01.2020	µg/m3		224		
BANADAG RAILWAY SIDING (NOISE)						BANADAG RAILWAY SIDING (NOISE)					
Date	Description Noise Level dB(A)	Noise Level		Day	Night	Date	Description Noise Level dB(A)	Noise Level		Day	Night
		Day	Night					Day	Night		
02.01.2020	Average	67.5	64.6			31.01.2020	Average	68.1	64.8		
	Maximum	70.7	67.3				Maximum	71.5	68.2		
	Minimum	64.2	61.9				Minimum	64.6	61.3		
	Leq db(A)	68.5	64.5				Leq db(A)	69.8	66.7		

Parameter	Limits						SPM	Noise (dB(A))	
	PM ₁₀	PM _{2.5}	SO ₂	NO _x	Co				
Limit µg/m3	100	60	80	80	2		600	75	70

ANNEXURE-XVI

Photographs showing Crops around Banadag Railway Siding





