BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH,
KOLKATA

.....

ORIGINAL APPLICATION No.65/2020/EZ

IN THE MATTER OF:

Bhagawan Padhan
S/o Late Sadhucharan Padhan,
R/o At. Vill. Derba,
P.O. Ghichamora,
P.S. Thelkoloi, Dist. Sambalpur,
Odisha-768212

....Applicant(s)

Versus

1. M/s Bhushan Power and Steel Limited
Having its Project Officer at
At. Vill. Thelkoloi,
PO. Lapanga, Dist. Sambalpur,
Odisha-768212

2. Sanjay Singal
Chairman/Managing Director,
M/s Bhushan Power and Steel Limited
At.Vill. Thelkoloi,
PO. Lapanga, Dist. Sambalpur,
Odisha-778212

3. Ashok Kumar Yadav and Papu Yadav
Proprietor
M/s Aryan Infralogistics Pvt. Ltd.
At. Hotel Aryan Complex,
Bijunagar, Beheramal,
PO/PS Jharsuguda,
Dist. Jharsuguda,
Odisha-768203

4. State Pollution Control Board
Through the Member Secretary,
Paribesh Bhawan, A/118, Nilakanthan Nagar,
Unit-VIII, Bhubaneswar-751012, Odisha

5. Collector cum District Magistrate
Sambalpur Collectorate,
Sambalpur, Odisha

6. Dy. Director Horticulture
Horticulture Officer,
Farm Road, Modipada,
Dist. Sambalpur,
Odisha-768002

7. District Forest Officer
Sambalpur, Odisha-768001

....Respondent(s)

COUNSEL FOR APPLICANT:

Mr. Batakrishna Behara, Advocate

COUNSEL FOR RESPONDENTS:

Mr. VVV Sastry, Advocate a/w
Mr. Tridib Bose, Advocate for R-1-3,
Mr. Dipanjan Ghosh, Advocate for R-4,
Mr. Prasenjeet Mohapatra, ASC for R-5, 6 & 7,
Mr. Gora Chand Roy Choudhury, Advocate for SEIAA, Odisha

JUDGMENT

PRESENT:
HON'BLE MR. JUSTICE B. AMIT STHALEKAR (JUDICIAL MEMBER)
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI (JUDICIAL MEMBER)
HON'BLE MR. SAIBAL DASGUPTA (EXPERT MEMBER)
HON'BLE DR. AFROZ AHMAD (EXPERT MEMBER)

Reserved On: - 30th March, 2022
Pronounce On: - 11th April, 2022

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1. Whether the Judgment is allowed to be published on the net? **Yes**

2. Whether the Judgment is allowed to be published in the NGT Reporter? **Yes**

JUSTICE B. AMIT STHALEKAR (JUDICIAL MEMBER)

Heard the learned Counsel for the Applicant as well as the learned Counsel for the Respondents and perused the documents on record.

2. This original application has been filed by the Applicant alleging violation of environmental norms by Respondent No.1, M/s Bhushan Power and Steel Limited (hereafter referred to as the Plant), operating in District Sambalpur, Odisha. It is stated that Respondent No. 1 is illegally depositing coal ash in the agricultural land of villagers which is their only means of income. The establishment of Respondent No.1 is operating without creating a green belt around the plant site, which is a mandatory provision as per CPCB guidelines. The pollution caused by the Respondent No. 1 Plant is also hampering the nearby forest, natural water resource and agricultural land which are hardly at distance of 300 to 400 meters from the Plant. The coal ash is deposited upto a height 40 to 45 feet beyond the prescribed limit and the site is un-attended by the establishment. The environment in the area always remains in a cloud of black dust. The productivity of the agricultural land has been affected due to constant deposition of coal ash dust over the land surface. The local villagers are also suffering from various diseases and dying due to lack of treatment. Several requests and complaints have been made to the concerned authorities against the said illegal acts of Respondent No.1 but all the Respondents are acting as mute spectators. The local domestic animals are also dying due to contamination and contact with the coal dust particles. The villagers of Derba and Gumkarama protested several times before the authorities and also participated in the public hearing to present their statements before the Additional District Magistrate about the pollution caused by the Respondent No. 1, but

to no effect. Though the State PCB issued closure notice on account of violation of environmental norms, the same was later revoked without any valid reason.

3. The Tribunal at the time of admission directed the Odisha State Pollution Control Board, District Magistrate, Sambalpur and SEIAA, Odisha to look into the matter and take remedial action following due process of law. The State Pollution Control Board was directed to be the Nodal Agency for coordination and compliance. The Tribunal had further directed that Action Taken Report be filed in this regard within two months.

4. On 13.08.2021 an affidavit was filed by Respondent No.4, Odisha State Pollution Control Board, bringing on record a Joint Inspection Report of an inspection carried out on 20.04.2021. In the affidavit, it was stated that due to heavy dumping of fly-ash upto a height of approximately 45-50 meters and insufficient guard wall along the dumping site, there may be chances of spillage of fly ash/solid waste in the neighbouring area in rainy season which causes infertility of the agricultural land and pollutes the water bodies. The joint inspection report is reproduced herein below:-

> ***"Joint Inspection Report w.r.t. OA No. 65/2020/EZ Bhawan Padhan Vs. M/s Bhusan Power & Steel Ltd.***
> ***The Ho'nble NGT in their order dtd. 03.03.2021 has been pleased to direct the State Pollution Control Board, Odisha, District Magistrate, Sambalpur and SEIAA, Odisha to look into the matter and take remedial action following due process of law. Vide SPCB, Odisha, Bhubaneswar letter No. 6053 dtd. 13.04.2021 the***

following officials have jointly visited the alleged site on 20.04.2021.

1. Er. Ramesh Kumar Ekka, Regional Officer, SPCB, Sambalpur,

2. Sri Susanta Kumar Sahoo, Asst. Collector, O/o of the Sub-Collector, Sadar, Sambalpur,

3. Dr. Pradeepta Kumar Nayak, Environmental Scientist, SEIAA, Bhubaneswar, Odisha,

4. Dr. S.N. Nanda, Asst. Env. Scientist, SPCB, Sambalpur,

5. Er. Pradhan, Asst. Env. Engineer, SPCB, Sambalpur,

Background of the Industry:

M/s Bhushan Power & Steel Limited is an Integrated Steel Plant. The present crude steel production capacity of the plant is 3.0 MTPA. The unit has also installed 506 MW CPP. Environmental Clearance has been obtained from MoEF&CC vide File No. J-11011/40/2009-IA-II(I) dated 17.10.2012 for setting up 3.0 MTPA Integrated Steel Plant. Later the industry has been accorded Environmental Clearance for expansion of the plant from 3.0 MTPA to 5.5 MTPA vide MoEF&CC File No. J11011/40/2009-IA-II(I) dated 06.12.2016. Consent to Establish has been issued by OSPCB for establishment of 3.0 MTPA integrated steel plant vide its letter no. 20712/Ind-II-NOC-5701 dated 06.11.2013. The unit has valid Consent to Operate issued by OSPCB vide letter no. 4955/IND-I-CON-4650 dated 25.03.2021 valid till 31.03.2022. The total land available with company for setting up 5.5 MTPA Integrated Steel Plant is 2035 Acres. Presently the operating plant capacity is 2.6 MTPA is spread over 1300 Acres and project work to attain 3.0 MTPA capacity is continuing at many places with the premises.

Observations: *The following observations were made during the joint visit.*

1. At Derba company is disposing its solid waste in dry disposal method. 04 Nos. of mounds have been biologically reclaimed. The 5th and 6th mounds are ongoing disposal site

found during visit. The detail mounds are as mentioned below: Mound-1 -21 Acres (Biologically Reclaimed) Mound-2 -19 Acres (Biologically Reclaimed) Mound-3 -13 Acres (Biologically Reclaimed) Mound-4 -17 Acres (Biologically Reclaimed) Mound-5&6-19 Acres (Active)

2. The company authority claimed to have developed green belt over around 245 Acres of land, which is about 18% of the existing plant area. However, the company authority has not consulted with concerned D.F.O., Sambalpur before plantation and there is no record of percentage of area already used for plantation whereas the area provision for plantation in EC conditions is 462 acres.

3. The nearest forest is Ghichamura forest which is about 200-250 meters away from the disposal site. A seasonal nalah passes near the disposal site. During the day of joint inspection, no flow of water in the nalah was found but the flow of water in the nalah was blocked by deposition of soil. During inspection, it is found that, agricultural lands are situated adjacent to the ash mounds. No agricultural activities are going on during joint visit, but some soil and ash deposits notices in the agricultural land. As crop was already harvested and due to summer season the contamination of agricultural land or productivities thereof due to ash mound could not be envisaged, however during rainy season if proper garland drain is not maintained, there may be chances of contamination of water of the nearby nalah and agricultural land.

4. As per the information provided by project proponent that, the land used for ash dust deposition are private land of tribal people and through third parties i.e. contractor the land owners have given consent to use the land for ash deposition, but there is no record and no consent approved by the District administration.

5. Due to heavy dumping of fly ash up to height of approximately45-50 meters & insufficient guard wall along the dumping site, there may be chances of spillage of fly ash/solid waste in the neighboring area in rainy season, which may cause infertility of the agricultural land and pollute the water bodies.

6. Company authority has not taken any permission from the Revenue Authority & encroached big patch of Govt. land including Gohar land of village Derba, causing disturbance of the use of communal lands of the villagers also no permission has been taken from competent authority for permanency utilizing the rayati land of SC/ST community as per section 22 of OLR Act, 1960.

7. The Board has revoked the direction of closure issued against the said industry following the due procedure.

8. During interaction with few local village on the day of inspection no such reports regarding may adverse health issue or any death of domestic animals are to ongoing solid waste disposal at Derba site was received. The CSP, activity for peripheral development of local villages i.e. for providing street light solar light and medical facility etc. It is very less. However, villagers demanded for provision of better infrastructure facility such as street light and during water before the joint inspection team.

9. Some compliance conditions of the Environmental clearance issued by MoEF&CC, Govt. of India is not complied by the Project Proponent (PP) which are as follows:-

a. Three tire avenue plantations of native species were not done along the haulage road.

b. The PP has not consulted with connected DFO, before plantation and there is no record of percentage of area already

used for plantation whereas area provision for plantation in EC conditions is 468 areas

c. The maintenance of haulage roads is very poor.

d. The CSR activities for peripheral development of local village i.e. for providing self drinking water, street light/ solar light and medical facility etc. is very less or nil.

Recommendations:

1. The Industry must construct concreteretaining wall, drainage network all around the solid dumping site and settling pit for treatment of surface runoff.

2. The industry must do three tire avenue plantations of native species along the haulage road at the dumpsite.

3. The industry shall engage special agency for carrying out detail out plantation study in consultation with local Forest Department.

4. The industry shall engage reputed institute/expert consultant for carryout stability report on solid waste dump sites at Derba site.

5. The industry shall conduct periodical health camps to the local villagers near Debra site.

6. The Pollution Control Board shall work in coordination with Revenue Authority while allowing & giving permissions for dumping of fly ash/solid waste for ensuring that systematic procedures are allowed, so that the fly ash/solid waste should not create any hazard to the flora & fauna of the nearby locality."

5. The Tribunal in its order dated 24.09.2021 noted that at page No.34 of the Original Application, there is a letter of the Revenue Inspector Lapanga, Rengali, addressed to the Tehsildar Rengali, mentioning therein that the ash-pond used by M/s Bhushan Steel and Power Ltd. Thelkoloi, Sambalpur had collapsed due to heavy rain in the month of August, 2019 but there was no mention of this

incident in the Joint Inspection Report. The Report also did not mention whether any soil/water sample test was taken to determine the degradation of soil and the level of contamination and whether any leaching has occurred resulting in loss of fertility of the soil. It was noted with surprise by the Tribunal that although earlier a closure order of the Plant had been passed but thereafter the closure order was revoked in spite of the findings of the Joint Inspection team. Neither Environmental Compensation had been determined nor cost of restitution or remedial measures had been determined. The Tribunal therefore, directed the Odisha State Pollution Control Board to file a fresh Inspection Report on the following points:-

(i) Soil and water analysis report of the area;

(ii) What is the condition of the fly-ash pond including the dumped fly ash which may result in leaching of pollutants to the soil;

(iii) Environmental degradation caused on account of any leaching from the ash dump/dumped fly ash;

(iv) Steps taken for utilization of 100% fly-ash as per the various notifications of the Ministry of Environment, Forest and Climate Change;

(v) Assess Environmental Compensation on account of degradation of soil and ground water and environment;

(vi) Penalty to be imposed for violation of consent conditions; and

(vii) Remedial measures to restore the area to its original character.

6. The Odisha State Pollution Control Board thereafter filed another affidavit dated 12.11.2021 with an Inspection Report of an

inspection carried out by the Committee on 21.10.2021 & 22.10.2021, the relevant extract of the report is reproduced as under:-

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Sl. No.	***Issues raised in the direction***	***Compliance observed***
1.	*Stop further dumping of fly ash (solid waste) in the government land including gochar land and rayati and of SC/ST at Derba site.*	*It was observed during visit that the industry has stopped dumping of fly ash/solid waste over any govt. land, gochar land and rayati land of SC/ST person at Derba site i.e., in ash mound No.6. They have stabilized the Mound No. 6 by covering soil ash planted saplings along its slope and over top of the mound. Presently, they are disposing bed ash and DRI klin accretion material in available area of about 8.0 Ac. adjacent to ash mound No.2 (which is extension of ash mound-2) over authorized land.*
2.	*Provide concrete retaining wall, drainage network all around the solid waste dumping site followed by settling pond for treatment of surface run-off and to prevent wash out to*	*There are 7 nos. of ash mounds. The industry has provided stone rubble machinery as toe wall around ash mound No.1, 3, 4, 5 & 6 with garland drain. The Unit has partly provided the toe wall of stone rubble machinery in the ash mound*

	nearby agricultural land and water bodies.	*No.2 but in extension part where presently dumping is carried out, where no toe wall. They have now started construction of toe wall at this extension part of ash mound No.2. Also, there is no toe wall provided at ash mound No.7. The unit has provided garland drain around all mounds and provided settling pond at ash mound No.6 only. In other ash mounds there is no settling pits/ponds provided for treatment of surface runoff.*
3.	*Carry out three tier avenue plantation of native species along the haulage road and at the dump site.*	*The industry has claimed that they have planted 1,76,435 nos. of trees at ash mounds from 2010-11 to till date. They have submitted this plantation status to DFO, Sambalpur for verification.* *This year they have planted 8,000 nos. of saplings over and along the slope of ash mound No.6.* ***They have not started three tier avenue plantation along the haulage road.***
4.	*Engage reputed institute or expert consultant to carry out*	*They have engaged Prof. Sanjat Kumar Sahu, HOD, PG Dept., Env. Science,*

	stability study on solid waste dump site at Derba and furnish report to this office.	*Sambalpur University, Jyoti Vihar, Sambalpur for conducting stability study of ash mound at Derba site. Also, they have included leachability due to dumped fly ash, environmental degradation caused onaccounf of any leaching from the ash dump site and its impact on flora and fauna and scope of three tier avenue plantation. Reportedly the study will be completed within 4 months.*
5.	*Maintain the haulage road connecting industry to dump site properly.*	*The haulage road inside the ash mound area at Derba site is about 2.3 km out of which about 1.5 km has been made blacktopped and balance 0.8 km is of morrum compacted road. they have repaired the damaged portion of the haulage road inside the ash mound area.*
6.	*Carry out plantation as per EC condition.*	*The unit has presently spread over 1300 Acres land. As per EC condition the unit shall develop green belt over 33% i.e., over an area of 429 Ac. Now, the unit has claimed that they have developed green belt over an area of 129.99 Ac in plant area and*

		along the boundary, over 73.37 Ac at outside plant, over 82.33 Ac. at Derba solid waste dump site and 27.48 Ac. at other solid waste disposal site i.e., total of 313.17 Ac. ***They have not achieved 33% green belt as per EC norms.***
7.	*Furnish current fly ash generation and disposal practice to this office.*	*It is learnt from the record of the industry that total ash generation from April, 2021 to Sept, 2021 is 6,36,763 Ton. They have supplied 89,833 Ton of fly ash to local fly ash brick manufacturer for fly ash brick making, 3,80,415 Ton of ash in abandoned quarry filling at Babuchakuli, 1,25,800 Ton of ash for small low land filling and 2670 Ton of ash for making of aggregates. They have achieved 99% utilization of ash.*

Compliance to direction of Hon'ble NGT order dtd. 24.09.2021

a) Soil and water analysis of the area

11 nos. of soil samples and 7 nos. of ground water samples from tube wells collected from ash mound area of Derba site. The details are given below:

Sl. No.	*Location of soil sample collection*
1.	*Near Ash Mound-1*

2.	*Near Ash Mound-2*
3.	*Near Ash Mound-3*
4.	*Near Ash Mound-4*
5.	*Near Ash Mound-5*
6.	*Near Ash Mound-6*
7.	*Near Ash Mound-6 (in back side)*
8.	*From Agriculture Field (back side of Mound-6)*
9.	*Near Ash Mound-7*
10.	*From Agriculture Field (Near Mound-7)*
11.	*From Agriculture Field (Near Derba village)*

Ground Water Sample

Sl. No.	*Location of ground water sample collection*
1.	*Ground Water Sample from Analakani Village (Near Mound-7)*
2.	*Ground Water Sample from Gumkarma Village (about 300m from dump site)*
3.	*Ground Water Sample from Gumkarma Chowk (100m from Mound-1)*
4.	*Ground Water Sample from Gumkarma Chowk (60m from Mound-1)*
5.	*Ground Water Sample from Derba village (about 500m from dump site)*
6.	*Ground Water Sample from Derba village near Samalai Temple (about 700m from dump site)*
7.	*Ground Water Sample near dump No.6 (ash mound no.6)*

Analysis result of soil sample

Copy of analysis report of soil samples of 7 locations as described above is enclosed as per Annexure-III. From the

result of analysis, it is revealed that parameters like Cyanide, Mercury, Lead, Cadmium, Copper, Zinc, Chromium, Fluoride are within the prescribed standard as per manual on sampling and analysis of Hazardous Waste, CPCB publication series ATS-16-2002-03.

Analysis result of ground water sample

Copy of analysis report of Ground water samples of 11 locations as described above is enclosed as per Annexure-IV. From analysis result following observations were made:

- *Parameters like Chlorine, Cr^{+6}, Fluoride, Sulphate, Cadmium, Copper, Zinc, Phenolic Compound, Cyanide, Mercury are within the prescribed standard in all samples.*

- *Parameters like total Fe meets prescribed standard at Analakani village near ash mound-7, Gumkarma Chowk (100m away from mound-1) & Gumkarma Chowk (60m away from mound-1). However, exceeding the prescribed standard at other locations like Gumkarma village (300m away from dump site), Derba village near Samalai Temple and near dump-6 (ash mound-6).*

- *Parameter like lead (Pb) is meets the prescribed standard at Gumkarma village (300m away from dump site), whereas does not meeting prescribed standard at other 6 locations like Analakani village (near ash mound-7), Gumkarma Chowk (100m away from mound-1) and Gumkarma Chowk (60m away from mound-1), Derba village, Derba village near Samalai Temple and near dump-6 (ash mound-6).*

- *Parameter like Thorium meet prescribed standard at all locations except at one location i.e., near dump-6 (ash mound no.6).*

- *Parameters like Manganese meets prescribed standard at Analakani Village, Near ash mound-7, Gumkarma Chowk*

(100m away from mound-1), Gumkarma Chowk (60m away from Mound-1). However, exceeded prescribed standard at Gumkarma village, Derba village, Derba Village near Samalai Temple and near dump-6 (ash mound no.6).

Environmental degradation caused due to leaching from ash dump

State Pollution Control Board, Odisha has earlier conducted a study on environmental Impact of fly ash disposal sites of major thermal power plants in Odisha through Veer Surendra Sai University of Technology Burla, Sambalpur, Odisha during 2016-17. They have submitted the study report to the Board during March, 2018. In this study report the impact of ash mound at Derba site is also included. Samples had been collected from bore well at Derba Ash mound and Derba village and soil samples at Derba ash mound and Derba village. The extract of the copy is enclosed as per Annexure-V. In the said report the ground water analysis result reveals that pH, Cr^{+6}, Cd, C_U, Zn, Hg and Fluoride meet the drinking water standard prescribed in IS-10500:2012 except Ca, Al & Pb, this exceedance could be due to geogenic factors. As per heavy metal analysis in ash and soil samples the result obtained from TCLP were found significantly low in compared to acid digestion test. This indicating a strong bonding of metals with other compounds of ashes.

Now, the industry has also engaged Prof. Sanjat Kumar Sahu, HOD, PG Dept., Env. Science, Sambalpur University, Jyoti Vihar, Sambalpur for conducting stability study of ash mound at Derba site, leachability due to dumped fly ash, environmental degradation caused on account of any leaching from the ash dump site and its impact on flora and fauna and scope of three tier avenue plantation along the haulage road.

b) Condition of fly ash mounds at Derba site

There are 7 nos. of ash mounds in the Derba site. Ash is dumped in dry condition in these mounds. Details of mound area and conditions is depicted below:

Sl. No.	*Description*	*Area in Acre*	*Condition of ash mound*
1.	*Ash Mound-1*	*21*	*Biologically reclaimed*
2.	*Ash Mound-2*	*19*	*Biologically reclaimed*
3.	*Ash Mound-3*	*13*	*Biologically reclaimed*
4.	*Ash Mound-4*	*17*	*Biologically reclaimed*
5.	*Ash Mound-5*	*9 Ac.*	*Biologically reclaimed*
6.	*Ash Mound-6*	*19*	*Covered with soil and about 8000 nos. of saplings are planted this year over the top of the dump and along the slope.*
7.	*Ash Mound-7*	*6*	*Covered with soil, but plantation is not developed over it.*

The industry has provided stone rubble machinery as toe wall around ash mound No.1, 3, 4, 5 & 6 with garland drain. The unit has partly provided the toe wall of stone rubble machinery in the ash mound No.2, but in the extension part where presently dumping is carried out, there is no toe wall facility. They have now started construction of toe wall at this extension part of ash mound No.2. Also, there is no toe wall provided at ash mound No.7. The Unit has provided garland drain at all ash mounds and settling pond at ash mound No.6

only. Agricultural land exist near Ash mound No.6 & 7. There is small seasonal nalla flowing in between Ash mound No.6 and ash mound no.2.

c) Fly ash utilization

<u>Fly Ash Generation, Utilisation, Management and Disposal Practices</u>

The power generation capacity of the plant is 506 MW, out of which the coal fired CPP is 490 MW and WHRB is 16 MW. The configuration of the power plant and the date of commissioning of each Unit are as follows.

Sl. No.	*Unit*	*Date of Commissioning*
1.	*CPP 40 MW*	*09.08.2005*
2.	*CPP 60 MW*	*12.05.2006*
3.	*Unit-2 of 2 x 8 MW WHRB*	*23.05.2008*
4.	*Unit-1 of 2 x 8 MW WHRB*	*03.08.2008*
5.	*Unit-1 of 3 x 130 MW CPP*	*03.10.2009*
6.	*Unit-2 of 3 x 130 MW CPP*	*24.10.2010*
7.	*Unit-3 of 3 x 130 MW CPP*	*07.03.2013*

<u>Utilization of Ash (during 2020-21 & from April, 2021 to Sept, 2021)</u>

A) It is learnt from the record of the industry that total ash generation from April, 2020 to March, 2021 is 11,99,388 Ton (Fly ash-9,47,576 + Bottom brick manufacturer for fly ash brick making, 3,23,025 Ton of ash in abandoned quarry filling at Babuchakuli, 3,09,513 Ton of ash for dyke raising at Derba and 3,35,969 Ton of ash in small low land filling. They have achieved 99% utilization of ash.

B) *It is learnt from the record of the industry that total ash generation from April, 2021 to Sept, 2021 is 6,36,763 Ton (Fly ash-5,03,042 + Bottom Ash-1,33,721 Ton). They have supplied 89,833 Ton fly ash to local fly ash brick manufacturer for fly ash brick making, 3,80,415 Ton of ash in abandoned quarry filling at Babuchakuli, 1,25,800 Ton of ash for dyke raising at Derba, 27,766 Ton of ash in small low land filling and 2670 Ton of ash for making of aggregates. They have achieved 99% utilization of ash.*

Observations and Recommendations:

1. *From analysis result of soil sample it is revealed that all the parameters of heavy metals like Cyanide, Mercury, Lead, Cadmium, Copper, Zinc, Chromium, Fluoride are within the prescribed standard.*

2. *From the analysis result of ground water samples, it is revealed that parameters like Chlorine, Cr^{+6}, Fluoride, Sulphate, Cadmium, Copper, Zinc, Phenolic Compound, Cyanide, Mercury are within the prescribed standard in all ground water samples. However, parameters like Pb, total Fe and Manganese are exceeding the prescribed standard at some of locations as described above, Earlier, as per the study report conducted by Veer Surendra Sai University of Technology Burla, Sambalpur, Odisha during 2016-17 the exceeding of standard w.r.t. Lead (Pb) is due to geogenic factor. From our latest analysis result shows Pb is exceeding the prescribed standard which may due to geogenic factor. As it is an instant sampling, a detail study may be conducted by the industry through reputed institute to know the cause of exceeding of standard w.r.t. Total Fe and Managanese in ground water samples and remedial measures to restore the area. The unit shall also submit detail closure plan of this ash mound site at Derba and proposal for further solid waste disposal after closure plan of this site.*

3. *The unit has installed only one bore well near Ash mound no.6. The unit shall install more nos. of test wells/bore wells around the ash disposal site to monitor the ground water quality.*

4. *The industry shall provide more height retaining wall/toe wall at ash mound no.6 and ash mound no.7 towards agricultural land as safeguard.*

5. *Ash mound no.7 shall be reclaimed biologically and proper toe wall provided as presently there is no toe wall.*

6. *The industry shall provide proper for treatment of surface run-off at ash mound no.1, ash mound no.2, ash mound no.3, ash mound no.4, ash mound no.5 and ash mound no.7 to prevent any wash out of solids to nearby nalla/agricultural field."*

7. An affidavit dated 17.02.2022 has been filed by Respondent No.1, M/s Bhushan Power and Steel Limited and Annexure (B) has been filed thereto which is a letter communication to the Member Secretary, Odisha State Pollution Control Board, showing the various compliances made by the Respondent No.1, M/s Bhushan Steel and Power Limited. The compliance shown by the Respondent No.1 are reproduced herein under:-

Sl. No.	***Direction***	***Compliance***
1	*Carry out three tier avenue plantation of native species along the haulage road and at the dump site.*	*We have already done thick plantation over all the reclaimed dumps 1, 2, 3, 4 & 5. Till date we have planted about 1,76,435 Nos. of trees at Derba solid waste disposal site. Photographs of reclaimed dumps with plantation enclosed as Annexure-1.*

		Solid waste disposal at ash mound No.6 has been stopped after receipt of direction from the Board. The ash mound No.6 has been covered with thick layer of soil for proper reclamation. We have planted 8000 Nos. of trees over the top and about 7000 Nos. on the slopes of ash mound No.6 during this monsoon. Photographs enclosed as Annexure-2. *We have already started three tier avenue plantations of native species along the haulage road within the dump site. About 600 Nos. of trees have already been planted and work is in progress. Photograph of plantation is enclosed as Annexure-3.*
2	*Provide more nos. of test wells/bore wells around the ash disposal site to monitor the ground water quality.*	*We have already constructed 04 Nos. of new bore wells surrounding the entire disposal site for regular monitoring of ground water quality. Photograph of bore wells are enclosed as Annexure-4. Presently 05 Nos. of bore wells are available at site for ground water sampling.*
3	*Provide retaining wall of adequate height/toe wall at ash mound no.6 agricultural land as safeguard to prevent*	*Retaining wall/toe wall is already constructed all around ash mound No.1, 3, 4, 5 and 6. Toe wall*

	wash out of ash.	*construction work is in progress at left out portion of ash mound No.2 which shall be completed by 31st December 2021.* *We shall continue construction of retaining wall/toe wall all around ash mound No.7 and complete the same by 31st March 2022. Photograph of toe wall construction work which is under progress at site is enclosed as Annexure-5.* *As directed we will increase the height of the retaining wall/toe wall of ash mound no.6 & 7 for safeguard and to prevent any wash out of ash. The construction of toe wall as directed by you shall be completed by 31st March 2022.*
4	*Ash mound no.7 shall be reclaimed biological and proper toe wall provided as presently there is no toe wall.*	*We will complete construction of toe wall all around the ash mound No.7 by 31st March 2022.*
5	*Provide proper treatment system for surface run-off at ash mound no.1, ash mound no.2, ash mound no.3, ash mound no.4, ash mound no.5 and ash mound no.7 to prevent any wash out of solids to nearby nalla/agricultural field.*	*We have provided garland drain followed by settling tanks in all the ash mounds. We will clean the garland drains and settling tanks by 31st January 2022. We will make necessary arrangements to ensure prevention of any wash out solids to nearby nalla or agricultural fields.*

6	*Conduct a detail seasonal study through reputed institute to know the cause of exceeding of standard w.r.t. Pb and Total Fe and Management in ground water samples and remedial measures to restore the water quality of the area.*	*As directed by the Board we have already engaged Prof. Sanjat Kumar Sahu, HOD, PG Dept. of Environmental Science, Sambalpur University to conduct study on the following aspects at out Derba solid waste disposal site.* *1. Stability study on solid waste dump site.* *2. The condition of fly ash pond including the dump fly ash which may result in leaching of pollutants to soil and underground water.* *3. Environmental degradation caused on account of any leaching from ash dump site and also impact on flora & fauna, etc.* *4. Detail plantation studies with scope for three tire avenue plantation.* *The consultant has already started sample collection work at site.* *Once the study is completed, we will submit a time bound action plan to the Board for implementation of remedial measures as per the recommendations of the consultant.*
7	*Submit detail closure*	*The closure plan of*

	plan of this ash mound site at Derba and proposal for alternative solid waste disposal site.	*ash mound site at Derba along with proposal for alternative solid waste disposal site will be submitted within one month to the Board.*

8. The Tribunal therefore directed the Odisha State Pollution Control Board to verify the various compliance made by the Respondent No.1, M/s Bhushan Power and Steel Limited.

9. An affidavit dated 28.03.2022 has been filed by Respondent No.4, Odisha State Pollution Control Board, bringing on record an Inspection Report of an inspection carried out on 24.02.2022. The observations in this Inspection Report are being reproduced herein under:-

"

Sl. No.	***Direction***	***Compliance***
1	*Carry out three tier avenue plantation of native species along the haulage road and at the dump site.*	*The industry has already done plantation over all the reclaimed dumps 1, 2, 3, 4, 5. Till date they have planted about 1,76,435 nos. of trees at the Derba solid waste dump site.* *They have stopped solid waste disposal at ash mound No.-6. Ash mound No.6 has been covered with soil and planted about 8000 nos. of trees over the top of dump and about 7000 nos. trees at side*

		slope of the said dump. *They have planted about 600 nos. of trees along the haulage road of the dump site.*
2	*Provide more nos. of test wells/borewells around the ash disposal site to monitor the ground water quality.*	*Earlier there was one tube well near ash mound No.6. Now, additional 04 Nos. of bore wells with handpump has been provided at ash disposal site (i.e. one no. near ash mound 1&2, one near ash mound No.7, one near ash mound No.6 and one near ash mound No.3) to monitor the ground water quality.*
3	*Provide retaining wall of adequate height/toe wall at ash mound no.6 and ash mound no.7 towards agricultural land as safeguard to prevent wash out of ash.*	*They have provided toe wal at ash mound No.1, 2, 3, 4, 5 and 6. Construction of toe wall at mound No.7 is under progress and same will be completed by the April, 2022.* *The industry has provided retaining wall of height about 4 feet at ash mound No.6 towards agricultural land nearby.* *They have not provided retaining wall at ash mound No.7 towards agricultural land to prevent wash out of ash.*

4	*Ash mound no.7 shall be reclaimed biological and proper toe wall provided as presently there is no toe wall.*	*Thick layer of soil cover has been provided over the area of Ash Mound No.7. Construction of toe wall is under progress and same will be completed by the April, 2022. No plantation made over the ash mound No.7.*
5	*Provide proper treatment system for surface run-off at ash mound No.1, ash mound no.2, ash mound no.3, ash mound no.4, ash mound no.5 and ash mound no.7 to prevent any wash out of solids to nearby nalla/ agricultural field.*	*The industry has provided garland drain followed by settling tanks in all the ash mounds to treat surface runoff during rain to prevent any wash out of solids to nearby nall/ agricultural field.*
6	*Conduct a detail seasonal study through reputed institute to know the cause of exceeding of standard w.r.t. Pb and Total Fe and Management ground water samples and remedial measures to restore the water quality of the area.*	*The industry has engaged Prof. Sanjat Kumar Sahu, HOD, PG Dept. of Environmental Science, Sambalput University to conduct the following studies at the disposal site.* *a) Stability study on solid waste dump site.* *b) Study of ground water quality and soil quality of the area.* *c) Leachability study of ash dump site to assess impact on flora & fauna,*

		etc. *d) Detail plantation studies with scope for three tier avenue plantation.* *The institute has already collected water and soil samples from the site for analysis. It was reported that the final report will be submitted by the institute in the month of April 2022.*
7	*Submit detail closure plan of this ash mound site at Derba and proposal for alternative solid waste disposal site.*	*The industry has intimated vide their letter dtd.4.1.2022 to the Board that they will close down the disposal at Derba site by 30.10.2022 and will submit alternative solid waste disposal site by 28.02.2022. But, till date did not submit any alternative solid waste disposal site to the Board.*

10. The non-compliances in the of report show that toe wall at ash mound No.1, 2, 3, 4, 5 and 6 has been provided. The construction of toe wall at Mound No.7 is under progress and the same will be completed by April, 2022. The Respondent No.1 has not provided retaining wall at ash mound No.7 towards agricultural land to prevent wash out of ash. The timeline given for completion of the works is April, 2022.

We, therefore, direct the Respondent No.1 to complete the construction of toe wall and retaining wall at ash Mound No.7 towards agricultural land to prevent wash out of ash positively by 30.04.2022.

11. The report also mentions no plantation has been done over the ash Mound No.7.

We, therefore, direct the Respondent No.1 to complete the plantation over ash mound No.7 by 30.04.2022.

12. So far as ground water quality and soil quality being collected from the dump site and area as well as leachability study of ash dump site to assess impact on flora & fauna and plantation studies with regard to three tier avenue plantation are concerned, it is stated that water and soil samples have been collected from the site for analysis and final report will be submitted by April, 2022.

We direct the authority concerned namely the Department of Environmental Science, Sambalpur University which has undertaken this task, to submit its report positively by 30.04.2022 and compliance of the same shall also be ensured by the Odisha State Pollution Control Board within a further one month, i.e., by 30.05.2022.

13. The industry has also intimated vide its letter dated 04.01.2022 to the Board that they will close down the disposal at Derba site by 30.10.2022 and will submit alternative solid waste

disposal site by 28.02.2022 but till date it has not submitted any alternative solid waste disposal site to the Board.

We direct the Respondent No.1, Plant, as per their own undertaking, to close down the disposal at Derba site by 30.10.2022 and submit alternative solid waste disposal site by 30.04.2022. The Odisha State Pollution Control Board shall also ensure compliance of these directions failing which the Odisha State Pollution Control Board being the regulatory authority shall proceed against the Respondent No.1 with regard to violation of environmental norms in accordance with law.

14. The Respondent No.1 in its affidavit has assailed the imposition of interim Environmental Compensation at Rs. 57,60,000/- (Rupees Fifty Seven lakhs Sixty thousand only) by the Odisha State Pollution Control Board and in their affidavit they have stated that the pollution index which has been considered as 80 has been drawn from the Odisha State Pollution Control Board order No.8333 dated 11.07.2018 when the present management of the Respondent No.1 was not even in existence and for the affairs and acts of the old management in running the Plant, the present management cannot be fastened with the liability of Environmental Compensation.

The plea taken by the Respondent No.1 is absolutely fallacious. The violation of environmental norms are by the Respondent No.1, Plant and it is quite immaterial as to who was at the helm of the management and running the Plant on the given date. Violation of

environmental norms and degradation of environment is an offence not only against the residents of the areas surrounding the Plant but also against the public at large who have a stake in clean and healthy environment, for which the Respondent No.1 would be liable and it is immaterial whether the present management was not in existence as on 11.07.2018. The present management having stepped into the shoes of old management as claimed by them they would incur all the rights and liabilities of the previous management and in matters of compensation against violation of environmental norms against the public at large, the Respondent No.1, M/s Bhushan Steel and Power Limited, would be liable and the liability of the present management would not be distinguishable or separable from the liability of the old management.

15. We, therefore, reject the plea of the Respondent No.1 with regard to imposition of Interim Environmental Compensation. Further, the Odisha State Pollution Control Board vide their affidavit dated 09.02.2022 has mentioned that the interim Environmental Compensation of Rs.57,60,000/- (Rupees Fifty lakhs sixty thousand only) has been deposited by the Respondent No.1 through online transaction on 07.02.2022. The affidavit further states that final Environmental Compensation will be levied after submission of the study report and completion of remedial measures.

16. We, therefore, direct the Odisha State Pollution Control Board to utilize the amount of interim Environmental Compensation

deposited towards restoration of degraded environment. Further, on submission of the study report and completion of all remedial measures by the Respondent No.1, the final Environmental Compensation may be levied and recovered in accordance with law which will also be used for restoration of the degraded environment.

17. With the aforesaid directions, the Original Application No. 65/2020/EZ is accordingly disposed of.

18. There shall be no order as to costs.

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B. AMIT STHALEKAR, JM

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Arun Kumar Tyagi, JM

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SAIBAL DASGUPTA, EM

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Dr. Afroz Admad, EM

Kolkata
April 11, 2022
Original Application No.65/2020/EZ
MN