

BEFORE THE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH AT KOLKATA

ORIGINAL APPLICATION NO. _____ OF 2023

IN THE MATTER OF:

SAHEEN TARANNUM & ANR.

... APPLICANTS

VERSUS

STATE OF ODISHA & ORS.

... RESPONDENTS

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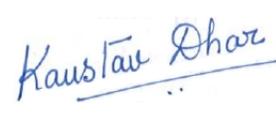
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DATE:- 27.07.2023

SYNOPSIS

The present Application is being filed under Section 14, 15 read with Section 20 of the National Green Tribunal Act, 2010 raising substantial question relating to the environment arising out of the operation of an illegal stack yard by Respondent No. 6 and 7, and the Nergundi Railway Siding (Respondent No. 8) of East Coast Railway, Govt. of India located in close proximity to the village Bilteruan in Alarpur, Cuttack, Odisha leading to extreme air and water pollution in the area and affecting the lives of the residents.

Both the railway siding and the private stack yard are located within 1 km distance of each other. The railway siding and the village is separated by a boundary wall and old N.H.-42 road, the only common road used by the residents of the Bilteruan village. Further, the private stack yard is located adjacent to the old N.H.-42, at a distance within 100 m from the Bilteruan village. It is submitted that both the units are in violation of the environmental norms and that the violations done are two-fold:

i. Violations from the operation of the private stack yard undertaken by Respondent No. 6 and 7:

The private stack yard, owned by Respondent No. 6 is operating since mid-2021 when Respondent No. 6 had leased his land to Respondent No. 7 for stacking of minerals in the private land. After that, both the Respondent Nos. 6 and 7 had jointly started loading, unloading and transporting Coal and other minerals such as Gypsum, Kinker, Australian Dust and Iron Ore from the private stack-yard to and from the Nergundi Railway Siding.

Such operation of the stack yard is in violation of the '**Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, 2010**' issued by the Odisha State Pollution Control Board (Respondent No. 2) which requires for the compliance of the following:

- a. As per Para 2(ii) of the Guidelines, they were required to obtain both CTE and CTO prior to their commencement of stacking the

minerals as they are causing pollution to both air and water. The Applicant looked into the website of the State Pollution Control Board to look for any consent obtained by Respondent No. 6 and 7, however, no such consent under Air Act or Water Act was found.

- b. Further, as per the siting considerations, under Para 4(iv), the distance of the stack yard is required to be within a minimum of aerial 500 m. However, the stack yard is located at a distance of only 200 meters away from the local school 'Biliteruan Urdu Primary School' and mosque, in violation of the said provision, causing extreme air pollution and breathing related issues amongst the students and worshippers.
- c. Also, the Guidelines provide for standard conditions under Para 5(b) which provides that standard conditions be imposed for pollution control while granting CTE/CTO for railway sidings and mineral stack yards. They are non-compliant with the standard conditions such as the height of material stack within storage to be kept below the height of the boundary wall at all times, the mineral storage areas containing fine or dusty material should be either cover with tarpaulins when not in use or fitted with water sprinkler/dry fog system, green belt of at least one row of trees shall be developed along the boundary of material storage yard, dust suppression arrangements to be provided, etc

ii. Violations from the operation of the railway siding undertaken by Respondent No. 8:

The Nergundi Railway Siding operated by Respondent No. 8 has been in operation for more than 15 years now from which temporary loading and unloading of minerals in small quantities have been taking place in nearby stack yards. It has been operating with a Consent to Operate granted by the Respondent No. 2, Odisha State Pollution Control Board dated 03.04.2023. However, the operation of the Railway Siding is violating multiple conditions of the Specific Conditions mentioned in Consent to

Operate granted to it dated 3.04.2023, which are imposed on them so as to prevent air pollution in the nearby areas. The Respondent No. 8 is non-compliant with the following:

- i. Violation of Specific Condition No. 2 as stacking, loading and unloading of gypsum ore takes place throughout the year in the area, with no exception to monsoon season.
- ii. Violation of Specific Condition No. 5 as stacking is done on both concrete platform as well as on plain ground.
- iii. Violation of Specific Condition No. 6 as no garland drain or provision for collection and treatment of waste water in a settling tank is available at the site.
- iv. Violation of Specific Condition No. 7 as no earthen pond is available at the site to collect surface run off generated during monsoon.
- v. Violation of Specific Condition No. 8 as no sprinkler system is available to control fugitive emission of dust during loading, unloading and transportation of material.
- vi. Violation of Specific Condition No. 9 as the entry roads are not cleaned on regular basis and dust from the minerals get deposited on all the internal road and the common road used by the residents of Bilteruan village.
- vii. Violation of Specific Condition No. 12 as only few trucks, which transport the minerals, are covered with tarpaulin sheet to suppress dust from becoming air-borne.
- viii. Violation of Specific Condition No. 13 as a very inadequate green belt has been developed which cannot suppress the fugitive emissions.
- ix. Violation of Specific Condition No. 15 as no test well at the siding has been provided for periodical analysis of ground water contamination as required by the conditions of the CTO.

Hence, based on such non-compliances, under Specific Condition No. 20, the Board has a right to revoke consent at any time if any violation

has been found. Therefore, the consent granted to the Railway Siding ought to be revoked for not complying with the conditions.

Impact of rampant air pollution on the residents of the village:

Due to rampant air pollution caused by the Nergundi Railway Siding and the private stack yard, the public health of the residents are being affected immensely. Over the years, many of the residents had to either relocate from the village or had to pay huge amounts of medical bills to survive. It is submitted that a majority of the residents have been suffering from respiratory diseases such as Asthma, Bronchitis, Lung failure, cardiovascular diseases and kidney failure. Also the toxic dust from the railway siding and the stack yard get further settled on the surface of the irrigation canal present near it which was once used by the residents for domestic consumption and agricultural needs. As a result, the residents have reduced the frequency or have completely stopped using the water for domestic consumption out of fear of consuming polluted water.

Respondents are liable to pay compensation for the ecological damage:

According to the Polluter Pays principle, a method of computation of the scale of compensation to deal with cases of violation had been prepared by the CPCB dated 30.05.2019, which was accepted by this Hon'ble Tribunal in *Paryavaran Suraksha Samiti & Anr. v. Union of India & Ors. (O.A. No. 593 of 2017)*. Therefore, the compensation for the magnitude of environment loss may be assessed in the same manner and be imposed on the Respondent No.s 6, 7 and 8 for impacting the air and water quality of the Bilteruan village and other areas nearby, as approved by this Hon'ble Tribunal in O.A. No. 593 of 2017.

No response nor action taken based on the representation sent by the Applicants:

The Applicants herein had sent a representation dated 06.07.2022 to the Respondents objecting to the loading/unloading of minerals at the railway siding and the private stack yard operated by Respondent No. 6 and 7 to and from the Nergundi Railway Siding and the effects on the health and environment of the people residing there. However, no response had been provided to the Applicants, nor any action had been taken by the respective authorities till date.

Hence, the present Application has been filed before this Hon'ble Tribunal.

LIST OF DATES

DATE	PARTICULARS
2007- 2008	The Nergundi Railway Siding began its operation in the premises of the Nergundi Railway Station in Alarpur, Cuttack, Odisha owned by East Coast Railway and managed by Station Superintendent of Nergundi Railway Station. It has been operating with a Consent to Operate granted by the Respondent No. 2, Odisha State Pollution Control Board which gets renewed every year for the purpose of stacking and transportation of Phospo Gypsum, G. Slag & Coal, Quartz and Cement Clinker.
16.04.2010	The Odisha State Pollution Control Board (Respondent No.2) had issued guidelines for management of minerals in stack yards and railway sidings titled "Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, 2010" (hereinafter referred to as 'Guidelines, 2010'). As per the Para 2(ii) Guidelines, issued by the Odisha State Pollution Control Board in 2010, require that all railway siding or mineral stack yard mandatorily obtain a Consent to Establish and a Consent to Operate prior to such establishment if they are established

	<p>post Board Resolution dated 16.02.2008. The Guidelines further provide for siting considerations for all mineral stack yards and standard conditions which may be imposed when granting the CTE and CTO.</p>
Mid-2021	<p>The private stack yard owned by Respondent No. 6 began operating since mid-2021 when Respondent No. 6 had leased his land to Respondent No. 7 for stacking of minerals in the private land. After that, both the Respondent Nos. 6 and 7 had jointly started loading, unloading and transporting Coal and other minerals such as Gypsum, Kinker, Australian Dust and Iron Ore from the private stack-yard to and from the Nergundi Railway Siding.</p>
02.11.2022	<p>The Respondent Nos. 6 and 7 have taken permission or NOC dated 2.11.2022 from the Harianta Gram Sarpanch which includes a cluster of villages including Bilteruan village, without any consultation from the residents of the said village residents who are the worst sufferers from the stacking in the stack yard.</p>
06.07.2022	<p>The Applicants had sent a representation dated 06.07.2022 to the Respondents objecting to the loading/unloading of minerals at the railway siding and the private stack yard operated by Respondent No. 6 and 7 to and from the Nergundi Railway Siding and the effects on the health and environment of the people residing there. The representation also prayed for immediate remedial measures to be taken for the betterment and benefit to protect the residents. However, no response had been provided to the Applicants, nor any action had been taken by the respective authorities till date.</p>
03.04.2023	<p>The Respondent No. 2 renewed the Consent to Operate</p>

	granted to the Nergundi Railway Siding on 03.04.2023 which is valid till 31.03.2024. However, the Railway Siding is violating the Specific Conditions of the CTO so granted.
27.07.2023	Hence, the present Original Application.

BEFORE THE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH AT KOLKATA

ORIGINAL APPLICATION NO. _____ OF 2023

IN THE MATTER OF:

1. SAHEEN TARANNUM

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2. AKSHAYA KUMAR JENA

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...APPLICANTS

VERSUS

1. STATE OF ODISHA

Through the Chief Secretary,
Government of Odisha,
General Administration Department,
Odisha Secretariat,
Bhubaneswar-751001
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2. ODISHA STATE POLLUTION CONTROL BOARD

Through the Member Secretary,
State Pollution Control Board (Head Office)
Paribesh Bhawan, A/118, Nilakantha Nagar, Unit – VIII,
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3. EAST COAST RAILWAY

Through the General Manager
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4. KHURDA ROAD DIVISION, EAST COAST RAILWAY

Through Divisional Railway Manager
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5. DISTRICT MAGISTRATE, CUTTACK

Office of the Collector and District Magistrate,
 Collectorate,
 Cuttack, Odisha -753002
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6. JAYANT KUMAR PRADHAN

At/Po-Sikharpur, Ps- Madhupatna
 Cuttack, Odisha-753003
 Phone: Nil, Email: Nil

7. M/S. PANDA & BROTHERS

Through Kirtan Nanda Panda
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 Cuttack, Odisha-754025
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8. NERGUNDI RAILWAY SIDING

Through Station Superintendent
 At Nergundi Railway Junction
 Alarpur, Cuttack
 Phone: 8455889915, Email: Nil

... RESPONDENTS**MOST RESPECTFULLY SHOWETH:**

- I. The address of the Applicant's Counsel is given below for the service of notices of this Application.
- II. The addresses of the Respondents are given above for the service of notices of this Application.
- III. That the present Application is being filed under Section 14, 15 read with Section 20 of the National Green Tribunal Act, 2010 raising substantial question relating to the environment arising out of:
 - a. The illegal stacking of Coal and other minerals like Gypsum, Kinker, Australian Dust and Iron Ore at the private stack yard which is operated by Respondent No. 6 and 7 located near the Bilteruan village and opposite to the railway tracks leading to the Nergundi Railway Station, in Alarpur, Cuttack, Odisha. This activity is in violation of the **Guidelines for Environmental**

Management in Mineral Stack Yards and Railway Sidings,

dated 16/4/2010 issued by the Odisha State Pollution Control Board (Respondent No. 2).

- b. The Respondent No. 6 and 7 is also operating mineral stack yard and railway siding without obtaining Consent to Establish and Consent to Operate from the Board under Section 25 of Water (Prevention and Control of Pollution) Act, 1974 and Air (Pollution and Control of Pollution) Act, 1981. The guideline of 2010 issued by State Pollution Control Board also requires the railway siding to obtain consent from the Board.
- c. The Respondent No. 6 and 7 is also operating mineral stack yard and the railway siding in violation of the siting criteria and other requirements under the guidelines.
- d. The Respondent No. 8, Nergundi Railway Siding of East Coast Railway, Government of India is also operating a railway siding close to Nergundi Railway Station, Alarpur, Cuttack, Odisha. The Respondent No. 8 has although obtained the consent but is operating the railway siding in gross violation of the consent condition and the requirement under the guidelines dated 16/4/2010 issued by State Pollution Control Board.
- e. The Applicant herein is raising substantial question relating to environment which is affecting the public at large and also is in violation of the provisions of enactments listed in the Schedule of National Green Tribunal Act, 2010. The Applicant is also invoking 'Polluter Pays Principle' against the Respondent No. 6, 7 and 8 for making them liable for payment of damages and compensation and restoration of the area.

ARRAY OF PARTIES:

1. That the Applicants are residents of village Bilteruan in Cuttack District of Odisha are concerned about the environment and ecology of the

area. The family members of the Applicants along with a majority of the residents of the said village have suffered immensely over the years, from heart and lungs related disease due to extreme air pollution arising out of loading, unloading and transportation of minerals near their village in the region from the Nergundi Railway Siding operated by Respondent No. 8 as well as the private stack yard operated by Respondent No. 6 and 7. They were concerned about the health of their family members and other residents and had hence, filed RTIs to seek information about the permits granted to the Respondent No.6 and 7 by the railway authority and information on any other NOC granted by other departments concerning the stacking. Further, the Applicants, based on the replies to the RTIs, have also sent a representation to concerned departments against the operation of the Railway Siding and the said illegal stacking of minerals being carried out in the private stack yard on the boundary of Bilteruan village near Nergundi Railway Station in Cuttack, Odisha.

2. That the Respondent No.1 is the State of Odisha who is responsible for the overall administration of the State. Respondent No. 2 is the Odisha State Pollution Control Board who had published Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, 2010" which requires all mineral stack yards to adhere to the siting criteria and obtain the mandatory Consent to Establish and Consent to Operate under Water Act, 1974 and Air Act, 1981 prior to establishment of a railway siding or mineral stack yard in Odisha. Respondent No. 3 is the East Coast Railway Division who has geographical jurisdiction regarding the railways extended to all parts of Odisha. Respondent No. 4 is Khurda Road Division of East Coast Railway which has jurisdiction over the Cuttack Railway division including Nergundi Railway Junction. Respondent No. 6 is the owner of private land on which the stacking of the said minerals is being done. Respondent No. 7 is a partnership firm who has taken lease

from the Respondent No. 6 to undertake stacking of minerals on the private land near the railway siding located near the Bilteruan village opposite to Nergundi Railway Station in District Cuttack, Odisha. However, both Respondent No. 6 and 7 are jointly operating the said stack yard. Further, Respondent No. 8 is also operating a railway siding close to Nergundi Railway Station. Though railway siding of Respondent No. 8 has obtained consent however, is operating in violation of consent condition and also in violation of guidelines issued by State Pollution Control Board.

FACTS IN BRIEF:

3. That the present Application is filed raising substantial question relating to the environment arising out of illegal operation of railway siding. The Applicant is filing this application under Section 14 and 15 of the National Green Tribunal Act, 2010 raising following concerns:
 - a. The illegal stacking of Coal and other minerals like Gypsum, Kinker, Australian Dust and Iron Ore at the private stack yard which is operated by Respondent No. 6 and 7 located near the Bilteruan village and opposite to the railway tracks leading to the Nergundi Railway Station, in Alarpur, Cuttack, Odisha. This activity is in violation of the **Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings**, dated 16/4/2010 issued by the Odisha State Pollution Control Board (Respondent No. 2).
 - b. The Respondent No. 6 and 7 is also operating mineral stack yard and railway siding without obtaining Consent to Establish and Consent to Operate from the Board under Section 25 of Water (Prevention and Control of Pollution) Act, 1974 and Air (Pollution and Control of Pollution) Act, 1981. The guideline of 2010 issued by State Pollution Control

Board also requires the railway siding to obtain consent from the Board.

- c. The Respondent No. 6 and 7 is also operating mineral stack yard and the railway siding in violation of the siting criteria and other requirements under the guidelines.
 - d. The Respondent No. 8, Nergundi Railway Siding of East Coast Railway, Government of India is also operating a railway siding close to Nergundi Railway Station, Alarpur, Cuttack, Odisha. The Respondent No. 8 has though obtained the consent but operating the railway siding in gross violation of the consent condition and the requirement under the guidelines dated 16/4/2010 issued by State Pollution Control Board.
 - e. The Applicant herein is raising substantial question relating to environment which is affecting the public at large and also is in violation of the provisions of enactments listed in the Schedule of National Green Tribunal Act, 2010. The Applicant is also invoking 'Polluter Pays Principle' against the Respondent No. 6, 7 and 8 for making them liable for payment of damages and compensation and restoration of the area.
4. That the mineral stack yard and railway siding are used for receiving or storing of minerals and also loading, unloading and transportation of minerals. The mineral stack yard and the railway siding in the present case is located adjacent to the Nergundi Railway Junction and opposite to the Bilteruan village in district of state of Odisha. The railway siding and the village is separated by a boundary wall and old N.H.-42 road, the only common road used by the residents of the Bilteruan village. Further, the private stack yard is located adjacent to the old N.H.-42, at a distance within 100 m from the Bilteruan village and opposite to the Nergundi Railway line leading to the Nergundi

Railway Junction in Alarpur, Cuttack, Odisha. On the other opposite side, is an irrigation canal called Birupa to Tangi canal running parallel to both the Bilteruan village and the stack yard which provides water to the nearby agricultural fields owned by the residents.

A copy of the Google Earth image showcasing the location of the railway siding and the private stack yard operated by Respondent No. 6 and 7 is annexed herewith as **ANNEXURE A/1.**

BRIEF BACKGROUND OF THE OPERATION OF THE PRIVATE STACK YARD AND THE NERGUNDI RAILWAY SIDING:

5. That the operation of both the private stack yard and the Nergundi Railway Siding has been explained below:

I. Private Stack Yard Operated by Respondent No. 6 and 7:

- a. That the private stack yard owned by Respondent No. 6 is operating since mid-2021 when Respondent No. 6 had leased his land to Respondent No. 7 for stacking of minerals in the private land. After that, both the Respondent Nos. 6 and 7 had jointly started storing and loading, unloading and transporting Coal and other minerals such as Gypsum, Kinker, Australian Dust and Iron Ore from the private stack-yard to and from the Nergundi Railway Siding. They have taken permission or NOC dated 2.11.2022 from the Harianta Gram Sarpanch which includes a cluster of villages including Bilteruan village, without any consultation from the residents of the said village residents who are the worst sufferers from the stacking in the stack yard.

A copy of the NOC granted by Harianta Sarpanch dated 2.11.2022 along with a translated copy is annexed herewith as **ANNEXURE A/2.**

II. Nergundi Railway Siding operated by Respondent No. 8:

- a. That the Nergundi Railway Siding has been in operation for more than 15 years now from which temporary loading and unloading of minerals in small quantities have been taking place in nearby

stack yards. The Respondent No. 8 has obtained a Consent to Operate granted by the Respondent No. 2, Odisha State Pollution Control Board, however, is not complying with the consent condition and the requirement under the guidelines issued by the State Pollution Control Board.

6. That the operation of the private stack yard and the railway siding are interlinked because the minerals transported via Railways are temporarily unloaded at the Nergundi railway siding. From there, the unloaded minerals are then loaded into trucks and subsequently get stored on the said private stack yard. The Respondent No.s 6 and 7 then sell the minerals to various buyers by transporting them via hyva trucks to nearby places or again via railways to different states. Such stacking and transportation is causing large quantity of dust to be emitted and deposited on the entire village premises. In the last one year, pollution level in the Bilteruan village, has reached at an alarming stage, affecting quality of life of the residents.
7. That the railway siding has been operational for years now. However, since the establishment of the stack yard in 2021, near the land available on the boundary of Bilteruan village, the air pollution in the area has increased drastically. Further, the loading and unloading of the said minerals are being done without any preventive measures being undertaken leading to extreme air pollution in the village and hence, the residents of the said village are facing lungs and heart related diseases such as asthma, bronchitis, lung failure etc.

A copy of the photographs showing the dust pollution from the private stack yard and railway siding is annexed herewith as **ANNEXURE A/3.**

8. That the dust emitted from the stack yard and the railway siding settle on the old N.H.-42 road connected to all the public amenities in the area, resulting in damage to the road and causing inconvenience for the residents to commute. Also, the dust from the stack yard and the

railway siding get settled on the surface of the irrigation canal present near it which was once used by the residents for domestic consumption and agricultural needs. As a result, the residents have reduced the frequency or have completely stopped using the water for domestic consumption out of fear of consuming polluted water.

**THE GUIDELINES ISSUED BY POLLUTION CONTROL BOARD
ON THE MINERAL STACK YARD AND RAILWAY SIDING:**

9. That the Respondent No. 2, Odisha State Pollution Control Board has issued "Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings", dated 16/4/2010 (hereinafter referred to as 'Guidelines, 2010') to regulate railway sidings and stack yards including transporting, storage, loading and unloading of minerals which have considerable air pollution potential.
10. That the Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, dated 16/4/2010 issued by the Odisha State Pollution Control Board has defined under Para 1.1, stack yard and railway siding as below:

1. DEFINITION:

1.

i) Stack-yard: Stack-yard means mineral stack yard over an area, which is used to receive, store either for a short period or long period, load/unload and dispatch minerals from the site and requires a trading license under Orissa Mineral (Prevention of Theft, Smuggling and Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) Rules 2007.

ii) Railway-siding: A railway-siding is a place/ area which is used to receive, temporarily store and load / unload material in the rakes and dispatch materials

A copy of the Guidelines, 2010 is annexed herewith as **ANNEXURE A/4.**

Guidelines provides for obtaining of Consent to Establish and Consent to Operate from the Odisha State Pollution Control Board:

11. That the guideline for railway siding and mineral stack yard further provides for obtaining of Consent to Establish and Consent to Operate

from State Pollution Control Board if they are established after Board's Resolution i.e. 16.02.2008. The railway siding and mineral stack yards which were operating prior to 16.02.2008 were only required to obtain Consent to Operate from the Board. As per the Para 2(ii) of the Guidelines, it requires that all railway siding or mineral stack yard mandatorily obtain a Consent to Establish and a Consent to Operate prior to establishment if they are established after the Board's Resolution of 16.02.2008. The relevant portion is reiterated below:

"2. APPLICABILITY:

...

ii) Railway-sidings, stack-yards and clusters of stack-yards, which are established after the date of Board's Resolution i.e. 16.2.08 or, to be established thereafter are required to obtain consent to establish first and then consent to operate from the Board."

...

v) The consent granted under section 25 of Water (Prevention & Control of Pollution) Act. 1974 and section 21 of Air (Prevention & Control of Pollution) Act. 1981 shall be subject to Trade License issued under Orissa Mineral (Prevention of Theft, Smuggling and Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) Rules 2007."

Criteria for siting of railway siding and mineral stack yard in the guideline

12. That the Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, dated 16/4/2010 for railway siding and mineral stack yard issued by the State Pollution Control Board provides siting criteria for locating mineral stack yard. As per para 4 of the guideline the Consent to Establish application for mineral stack yards can be considered only on fulfilling the siting criteria. The para 4 of the guideline is reproduced here for reference:

"4. SITING CONSIDERATIONS (MINERAL STACK-YARD):

Consent to Establish applications for mineral stack-yards shall be considered on the basis of the following site suitability criteria.

i) The boundary of proposed site shall be at an aerial distance of at least 100 meter from State/National Highway.

ii) The boundary of the proposed site shall be at an aerial distance of at least 500 meter away from Schools, Colleges, Hospitals, Archeological monuments, and other sensitive areas.

iii) It shall be ensured that run-off during rain from the proposed site, any water body, which is used by local people, remains at minimum possible level.

iv) Location of the stack-yard should be such that there is no public inconvenience for parking or movement of vehicles.

v) The applicant for consent to establish shall obtain a NOC from Sarpanch following a gram sabha if it is proposed in a rural area or obtain NOC from the concerned ULB in case of urban area.

vi) In case of new cluster the proposed site shall conform to the above stipulations for siting as a whole."

As per the above provision of the guideline, following is the minimum distance to be complied with for setting up of mineral stack yard.

Sl. No.	Siting Consideration	Distance
1.	State / National Highway	100 meters
2.	School, Colleges, Hospitals, Archeological monuments, and other sensitive areas	500 meters

For the purpose of siting, the guidelines also provides for run off during rain from the site to any water body and also to ensure no public inconvenience for parking and movement of vehicles.

Provisions about controlling pollution for operating railway siding and mineral stack yards in the guideline

13. That the guideline provides for certain standard conditions to be followed while setting up and operating railway siding and mineral stack yards. The some of the conditions mentioned in the guidelines which are required to be followed by the project proponent are reproduced here for reference:

"5. ENVIRONMENTAL ASSESSMENT:

...

b) Standard conditions (RAILWAY SIDING AND MINERAL STACK YARDS):

...

House Keeping:

...

2. A boundary wall of at least 3 meter height shall be constructed along the periphery of the mineral stack-yard to prevent the dust particles from being air borne and / or getting carried away with surface run off to nearby water bodies.

3. The height of material stack within storage areas must be kept below the height of the boundary wall at all times to prevent the material from being air borne.

4. All mineral storage areas containing fines or dusty materials must be either:

- covered with tarpaulins when not in use, or
- fitted with Water Sprinkling / Dry fog systems.

5. Green belt of at least one row of trees shall be developed along the boundary of material storage yard, in case of stack-yards and railway siding which are located in close proximity to villages and residential areas, a green belt of adequate width between the habitation and the stack-yard is recommended.

6. Planting of trees all along the connecting road and regular grading of such road shall be carried out to prevent generation of dust due to movement of dumpers/trucks.

...

Air Pollution Control:

9. Dust suppression arrangement shall be provided on approach road by using water sprinklers / mobile water tanker.

...

11. At the material storage areas, atomized stationery mist spray of water or conditioning of material with water shall be practiced to prevent dust getting air borne during loading/unloading.

12. Sprinkler systems must be maintained and be kept in a good operable condition at all times.

...

Water Pollution Control:

17. Domestic effluent shall be discharged to soak pit through septic tank constructed as per BIS specifications.

18. Garland drain shall be provided along the boundary wall at the appropriate places depending upon the slope of the area, inside the mineral stack-yard. Provision shall be made

for collection of wash water from the garland drain and the water, so collected shall be treated in a sedimentation tank for further use inside the premises for green belt or water sprinkling etc. In case of a cluster, a common facility shall be developed, operated and maintained by the cluster operators.

...”

It is submitted that the Applicant is herein only reproducing the important standard condition and is not reproducing the entire conditions from the guideline for the sake of brevity and reserves their right to refer to the conditions of the guideline at the time of hearing.

Requirement of obtaining Consent to Establish and Consent to Operate under Air Act and Water Act

14. That as per Section 21 of Air (Prevention and Control of Pollution) Act, 1981, any industry require prior consent from the State Pollution Control Board and similar provision is there in Section 25 of Water (Prevention and Control of Pollution) Act, 1974. Hence, operating such a unit at large scale, without prior consent will be in violation of the provisions of Air Act and Water Act.

ILLEGAL OPERATION OF STACK YARD BY RESPONDENT NO. 6 AND 7 AND OPERATION OF RAILWAY SIDING IN VIOLATION OF CONSENT CONDITION BY RESPONDENT NO. 8

15. It is submitted that the violations from the operation of the private stack and the railway siding are two-fold which are:
- i. Violations from the operation of the private stack yard undertaken by Respondent No. 6 and 7
 - ii. Violations from the operation of the railway siding undertaken by Respondent No. 8

Therefore, the Applicants by way of this Application would like to raise issues regarding the operation of the railway siding and stack yard in the subsequent paragraphs below.

Illegal operation of stack yard by Respondent No. 6 and 7

16. That the Respondent No. 6 and 7 are running the private stack yard located adjacent to the Bilteruan village and within 1 km of the Railway Siding. They transport the minerals from the Nergundi railway siding via trucks, which are then stacked on the said private land. The Respondents then sell the minerals to various buyers by transporting them via hyva trucks or via railways.

Operation of stack yard without Consent to Establish and Consent to Operate from the Odisha State Pollution Control Board

17. That the Respondent No. 6 and 7 is operating the stack yard within close proximity to Bilteruan village without obtaining any Consent to Establish or Consent to Operate as required under Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, dated 16/4/2010 issued by State Pollution Control Board. It is submitted that the activity of Respondent No. 6 and 7 of storing and further transporting the minerals falls within the definition of stack yard as defined under the guidelines issued by State Pollution Control Board. That since the said stack yard was established after the date of Board's Resolution i.e. 16.02.2008 as per Para 2(ii) of the Guidelines, 2010, i.e. mid-2021, accordingly, the Respondent No. 6 and 7 were required to obtain both CTE and CTO prior to their commencement of stacking the minerals.
18. It is further submitted that the Respondent No. 6 and 7 also require to obtain Consent to Establish and Operate under Section 21 of Air (Prevention and Control of Pollution) Act, 1981 and Section 25 of Water (Prevention and Control of Pollution) Act, 1974. The Applicant looked into the website of the State Pollution Control Board to look for any consent obtained by Respondent No. 6 and 7, however, no such consent under Air Act or Water Act was found.

Operation of stack yard by Respondent No. 6 and 7 in violation of siting criteria provided under the guidelines

19. That the stack yard of the Respondent No. 6 and 7 is also operating in violation of the siting criteria provided in the Guidelines dated 16/4/2010 issued by State Pollution Control Board. It is submitted that as per the above-mentioned siting considerations, the following siting considerations are not complied with by the Respondent No. 6 and 7:

S.No.	Para No.	Siting Consideration	Non-Compliance to the Siting Consideration
1	4(ii)	<i>The boundary of the proposed site shall be at an aerial distance of at least 500 meter away from Schools, Colleges, Hospitals, Archeological monuments, and other sensitive areas.</i>	The stack yard is located at a distance of only 200 meters away from the local school 'Biliteruan Urdu Primary School' and mosque, in violation of the said provision, causing extreme air pollution and breathing related issues amongst the students and worshippers respectively.
2	4(iii)	<i>It shall be ensured that run-off during rain from the proposed site, any water body, which is used by local people, remains at minimum possible level.</i>	There is only one common road connecting the village to the main road, the old N.H.-42 and is frequently used by all the residents for commute. Therefore, during monsoon, due to over stacking of minerals beyond the capacity of the stack yard, surface run-offs get deposited on the common road causing huge

			inconvenience for the residents to commute to work and for children reaching school.
3	4(iv)	<i>Location of the stack-yard should be such that there is no public inconvenience for parking or movement of vehicles.</i>	The location of the stack yard is adjacent to the old N.H.-42 road. However, the operation of the stack yard causes hindrance to the movement of the residents on the common road as all the trucks used for loading, unloading and transporting of minerals from the stack yard are parked on this common road. Hence, the road becomes too narrow and causes inconvenience to commute.

A copy of the pictures showing trucks parked on old N.H.-42 is annexed herewith as **ANNEXURE A/5.**

20. That it is clear that the Respondent Nos. 6 and 7 are not compliant with the siting criteria important for the suitability of the stack yard in the said location. Hence, the stack yard is in direct violation of the siting considerations according to Para 4(ii), (iii) and (iv) of the said Guidelines.

Operation of stack yard by Respondent No. 6 and 7 in violation of standard conditions provided under the guidelines

21. That the Guidelines dated 16/4/2010 issued by the State Pollution Control Board also provide some standard conditions which are required to be followed for setting up of stack yard. The Guidelines

provides for imposing standard conditions under Para 5(b) for pollution control while granting CTE/CTO for railway sidings and mineral stack yards. That the private stack yard operated by Respondent No. 6 and 7 are already violating the requirement of not obtaining Consents from the Respondent No. 2 and the siting considerations mentioned in the Guidelines. Had they been issued Consent from Respondent No. 2, they are accordingly still non-compliant.

22. That the Respondent No. 6 and 7 are not complying with the conditions provided under the Guidelines, 2010. It is submitted that as per Para 5 (b)(2) and Para 5(b)(3), it is required for the stack yard to have a boundary wall of minimum 3 meters height to prevent dust particles from being air borne and/or getting carried away with surface run off to nearby water bodies. Further, it is required that the height of material stack within storage areas must be kept below the height of the boundary wall at all times to prevent the material from being air borne. However, in the present scenario, although a boundary wall has been provided around the periphery of the stack yard, the height of the mineral stack yard exceeds the height of the wall causing immense dust emissions in the air.

A copy of the photographs showing the height of the stack yard exceeding the height of the boundary wall is annexed herewith as

ANNEXURE A/6.

23. That also, as per Para 5(b)(4), the mineral storage areas containing fine or dusty material should be either cover with tarpaulins when not in use or fitted with water sprinkler/dry fog system. However, the Respondent Nos. 6 and 7 have not ensured any such compliance to control dust emissions. On the contrary, they have exceeded the loading capacity of the stack yard. Also, no sprinkler system for dust suppression has been provided by the Respondent No. 6 and 7.

A copy of the photographs showing the common road old N.H-42 muddy due to the inadequate dust suppression method is annexed herewith as **ANNEXURE A/7.**

24. That further, under Para 5(b)(5) and Para 5(b)(6), it is required that green belt of at least one row of trees shall be developed along the boundary of material storage yard, in case of stack-yards and railway siding which are located in close proximity to villages and residential areas, a green belt of adequate width between the habitation and the stack-yard is recommended. Also, planting of trees all along the connecting road and regular grading of such road shall be carried out to prevent generation of dust due to movement of dumpers/trucks. However, no such green belt has been provided by the said Respondents near the boundary of the stack yard which is unable to contain the dust pollution spreading to nearby areas including the village premises.
25. That also under Para 5(b)(9) and Para 5(b)(11), dust suppression arrangement shall be provided on approach road by using water sprinklers / mobile water tanker. At the material storage areas, atomized stationery mist spray of water or conditioning of material with water shall be practiced to prevent dust getting air borne during loading/unloading. However, no such system has been provided by the Respondent Nos. 6 and 7. There is no dust suppression sprinkling method installed causing the mineral dust to be air borne and be deposited on nearby vegetation and on the houses of the residents of the village. Further, only a tanker has been provided by the stack yard on the common road, as mentioned previously, which sprinkles water once a day to control fugitive dust emission on the road area.
26. That according to Para 5(17), the stack yard must set up a septic tank for release of domestic effluents in septic tanks. Further, Para 5(18) provides for garland drains to be established for the use of treated water inside the premises for dust suppression measures and

sprinkling on green belt. It is submitted that no such measures have been provided by the stack yard and the effluents get released in the irrigation canal, which is an important source of irrigation in the nearby agricultural fields.

27. That the Respondent No. 6 and 7 have made no efforts to deal with the issues even after several complaints from the residents. No dust suppression mechanism such as water sprinklers have been installed to control the issue of run-off and dust emission into the village. Neither any efforts toward controlling air pollution have been made.

VIOLATIONS OF THE CONSENT CONDITIONS BY RESPONDENT NO. 8 THE NERGUNDI RAILWAY SIDING:

28. That the Respondent No. 8 is operating railway siding next to Nergundi Railway Station in District Cuttack, Odisha. Railway Siding has been operational for more than 15 years now and has renewed the Consent to Operate dated 03.04.2023 which is valid till 31.03.2024. However, the Railway Siding is violating certain Specific Conditions which were required to be followed as explained in the table below:

Specific Condition No.	Specific Condition	Applicant's Contention
2	<i>Under normal circumstances, activities like stacking, loading & unloading of Phospo Gypsum Ore shall be suspended during 15th June to 31st October (During monsoon period).</i>	Stacking, loading and unloading of gypsum ore takes place throughout the year with no exception to monsoon season.
5	<i>The materials shall be</i>	There is partial

	<p><i>stored on concrete platform at siding. Under no circumstances stocking shall be carried outside the concrete platform.</i></p>	<p>concrete platform available and stacking is done on both concreted platform as well as on plain ground.</p>
6	<p><i>The unit shall provide garland drain along with boundary wall at the appropriate places depending upon the slope of the area inside the railway siding. Provision shall be made for collection of waste water from the garland drain and the water so collected shall be treated in a settling tank for further use inside the premises for green belt and dust suppression in the stack yard.</i></p>	<p>No garland drain or provision for collection and treatment of waste water in a settling tank is available at the site. It is submitted that there is no collection tank as well to collect the waste water and hence, it seeps into the nearby area.</p>
7	<p><i>To collect the surface run off generated during the monsoon and other period the unit shall provide an earthen pond and store/treat the water before discharge to outside.</i></p>	<p>There is no such earthen pond available at the site to collect surface run off generated during monsoon. It is submitted that the</p>

		<p>surface run off get deposited on the old N.H.-42 road causing inconvenience to the residents to commute.</p>
8	<p><i>The unit shall adopt adequate dust suppression measures to suppress fugitive emission during loading, unloading and transportation of materials.</i></p>	<p>No sprinkler system is available to control fugitive emission of dust during loading, unloading and transportation of material. Hence, such dust from the loading/unloading of minerals affect the residents of the village who reside in close proximity to the railway siding.</p>
9	<p><i>All entry points, internal roads and loading/unloading areas must be made worthy for movement of heavy vehicles by using low permeability material (i.e. concrete or bitumen) and can be cleaned regularly to minimize potential for dust generation and off-site</i></p>	<p>That the roads are not cleaned on regular basis and dust from the minerals get deposited on the road. Hence, during transportation of heavy vehicles, large amount of dust gets generated and impact the air quality.</p>

	<i>impact.</i>	
12	<i>During transportation of material by trucks/tippers/wagons through public roads the vehicle shall be properly covered with tarpaulin sheets.</i>	Very few trucks are covered with tarpaulin sheet to suppress dust from become air-borne.
13	<i>A green belt all along the boundary wall at siding area shall be properly developed and maintained.</i>	A very inadequate green belt has been developed which cannot suppress the fugitive emissions, considering that the siding being in operation for more than a decade now and getting its CTO renewed every year.
15	<i>Nergundi Railway siding shall provide a test well at the siding for periodical analysis of ground water contamination if any during the storage and handling of Phospo Gypsum.</i>	No such test well at the siding has been provided for periodical analysis of ground water contamination.

A copy of the Consent to Operate granted by Respondent No.3 to the Nergundi Railway Siding is annexed herewith **ANNEXURE A/8.**

29. That it is clear from the above that the Railway Siding is violating the conditions granted to it under the Consent to Operate dated 03.04.2023. Hence, based on such non-compliances, under Specific Condition No. 20, the Board has a right to revoke consent at any time if any violation has been found. Therefore, the consent granted to the Railway Siding ought to be revoked for not complying with the conditions, which are important for the control of air and water pollution in the surrounding areas.

IMPACTS OF RAMPANT AIR POLLUTION ON THE RESIDENTS OF THE VILLAGE:

30. That due to rampant air pollution caused by the Nergundi Railway Siding and the private stack yard, the public health of the residents are being affected immensely. Over the years, many of the residents had to either relocate from the village or had to pay huge amounts of medical bills to survive. It is submitted that a majority of the residents have been suffering from respiratory diseases such as Asthma, Bronchitis, Lung failure, cardiovascular diseases and kidney failure.

A copy of the medical reports of the residents are annexed herewith as **ANNEXURE A/9.**

31. That the family members and relatives of the Applicants are also suffering from breathing related issues such as Asthma. As per a study done on impact of prolonged exposure to mine dust on human health titled "*Potential implications of mine dusts on human health: A case study of Mukula Mine, Limpopo Province, South Africa*" published in National Library of Medicine in the year 2013, it was concluded that:

"Mine dusts in ambient air are generally above allowable limits. Prolong exposure to these dusts by miners could lead to respiratory diseases (asthma, silicosis and tuberculosis) and skin disorders. The concentrations of these dusts present great risks to the health of miners and inhabitants of Mukula community around the mine. It is necessary to have control measures such as wet drilling, sprinkling of water on

mine roads and planting of vegetation around mine to trap mine dusts."

A copy of the article titled "*Potential implications of mine dusts on human health: A case study of Mukula Mine, Limpopo Province, South Africa*" is annexed herewith as **ANNEXURE A/10.**

32. That also the toxic dust from the railway siding and the stack yard get further settled on the surface of the irrigation canal present near it which was once used by the residents for domestic consumption and agricultural needs. As a result, the residents have reduced the frequency or have completely stopped using the water for domestic consumption out of fear of consuming polluted water. However, they have to use the polluted water to cultivate their agricultural fields near their houses. Due to extreme fugitive dust emission from the stack yard and tainted water due to dust deposition, the farmers are incurring huge losses constantly from damage to the crops.
33. That as per a study published in International Journal of Science and Research in 2013 titled "*Effect of Different Mining Dust on the Vegetation of District Balaghat, MP- A Critical Review*", it was concluded that mining dusts have toxic impacts on the plants and animals by way of penetration of toxic minerals and other reasons. The relevant portion is reproduced below:

"5. Conclusion and Future Aspects

The physiological response of plants reveals many different direct routes of action through which dust can affect plants. Mining dust may also exacerbate secondary stresses, such as drought, insects and pathogens, or allow penetration of toxic metals or phytotoxic gaseous pollutants. Effect of mining dust on natural communities may alter the competitive balance between species in a community. These changes in the vegetation may also affect animal communities, from vertebrate's grazers to soil invertebrates. This may, for example, alter cycles of decomposition. ..."

A copy of the article titled "*Effect of Different Mining Dust on the Vegetation of District Balaghat, MP- A Critical Review*" is annexed herewith as **ANNEXURE A/11.**

34. That therefore, the railway siding as well as the stack yard are causing grave impacts on the health of the residents of the Bilteruan village and affecting the standard of living in the village. Also, it is causing crop yield failure and affecting the livelihood of the farmers in the village. Hence, the railway siding and the stack yard must be immediately be stopped from functioning in the interest of preventing further damage to the ecology of the area.

RESPONDENT NO.S 6, 7 & 8 ARE LIABLE TO PAY COMPENSATION FOR THE ECOLOGICAL DAMAGE FROM THE OPERATION OF THE PRIVATE STACKYARD AND RAILWAY SIDING:

35. That the Respondent No.s 6,7 and 8 are liable for the persistent ecological damage caused by the illegal operation of the stack yard by Respondent No. 6 and 7, and the operation of the railway siding by Respondent No. 8 in gross violation of the CTO conditions issued to it by the Odisha State Pollution Control Board.
36. That according to the order in ***Paryavaran Suraksha Samiti & Anr. v. Union of India & Ors. (O.A. No. 593 of 2017)*** dated 28.08.2019, this Hon'ble Tribunal had held that:

"1.No polluted matter can be discharged into a stream or well or on land, and no industry, operation or process can be established and no out-let for discharge of sewage used without consent of the State Board. The Water Act provides powers to give directions for closing any such activity as well as for prosecution. Power to give directions implicitly includes recovery of compensation on 'Polluter Pays' principle."

37. That therefore, a method of computation of the scale of compensation to deal with cases of violation had been prepared by the Central Pollution Control Board dated 30.05.2019 titled "*Report of the CPCB In-house Committee on Methodology for Assessing Environmental*

Compensation and Action Plan to Utilize the Fund” was submitted before this Hon’ble Tribunal for the proper adjudication of the said matter. The Hon’ble Tribunal had also recorded and approved the computation method proposed by the CPCB by order dated 28.08.2019.

38. That according to the Report by CPCB, the following compensation regime has been laid down:

“The Environmental Compensation shall be based on the following formula:

$$EC=PI \times N \times R \times S \times LF$$

Where,

EC is Environmental Compensation in ₹

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees (₹) for EC

S = Factor for scale of operation

LF = Location factor

A copy of the relevant portion of the Report titled *Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund*” by CPCB dated 30.05.2019 is annexed herewith as **ANNEXURE A/12.**

39. That this Hon’ble Tribunal had already approved the method of computation of compensation fixed for industrial units, GRAP, solid waste, sewage and ground water. Therefore, the compensation for the magnitude of environment loss may be assessed in the same manner and be imposed on the Respondent No.s 6, 7 and 8 for impacting the air and water quality of the Bilteruan village and other areas nearby, as approved by this Hon’ble Tribunal in O.A. No. 593 of 2017.

NO RESPONSE NOR ACTION TAKEN BASED ON REPRESENTATION SENT BY THE APPLICANTS DATED 06.07.2022:

40. That the Applicants herein had sent a representation dated 06.07.2022 to the Respondents objecting to the loading/unloading of

minerals at the railway siding and the private stack yard operated by Respondent No. 6 and 7 to and from the Nergundi Railway Siding and the effects on the health and environment of the people residing there. The representation also prayed for immediate remedial measures to be taken for the betterment and benefit to protect the residents. However, no response had been provided to the Applicants, nor any action had been taken by the respective authorities till date.

A copy of the representation dated 06.07.2022 is annexed herewith as

ANNEXURE A/13.

GROUND S

41. That the present Application is being filed on the following grounds amongst others which the Applicant may take up at the time of hearing of the Application:

- A. Because the Respondent Nos. 6 and 7 are illegally stacking Coal and other minerals such as Gypsum, Kinker, Australian Dust and Iron Ore at the private stack yard of Respondent No. 7 which is adjacent to the old N.H.-42, at a distance of 200 m from the Bilteruan village and opposite to the Nergundi Railway siding in Cuttack, Odisha;
- B. Because the stacking of mineral dust is being done by the Respondent No. 6 and 7 without a mandatory CTE and CTO prior to their commencement of stacking the minerals in the said location which is a violation under Section 25 of Water (Prevention and Control of Pollution) Act, 1974, Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Odisha State Pollution Control Board Guidelines of 2010.
- C. Because Section 44 of the Water (Prevention and Control of Pollution) Act, 1974 provides punishment for not obtaining 'Consent to Establish' and 'Consent to Operate' prior to the

establishment of the said stack yard. The relevant portion is reiterated below:

"44. Penalty for contravention of section 25 or section 26.—*Whoever contravenes the provisions of section 25 or section 26 shall be punishable with imprisonment for a term which shall not be less than 2 [one year and six months] but which may extend to six years and with fine."*

D. Because Section 37 of the Air (Prevention and Control of Pollution) Act, 1981 provides punishment for not obtaining 'Consent to Establish' and 'Consent to Operate' prior to the establishment of the said stack yard. The relevant portion is reiterated below:

"37. Failure to comply with the provisions of section 21 or section 22 or with the directions issued under section 31A.—*(1) whoever fails to comply with the provisions of section 21 or section 22 or directions issued under section 31A, shall, in respect of each such failure, be punishable with imprisonment for a term which shall not be less than one year and six months but which may extend to six years and with fine, and in case the failure continues, with an additional fine which may extend to five thousand rupees for every day during which such failure continues after the conviction for the first such failure.*

(2) If the failure referred to in sub-section (1) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which shall not be less than two years but which may extend to seven years and with fine."

E. Because the mineral stack yard also does not meet the necessary siting criteria as mentioned in the Guidelines, 2010 such as the location of the stack yard is only 200 meters away from the local school and mosque, in violation of Para 4(iv) which requires the boundary of the mineral stack yard has to be at a minimum aerial distance of 500 meters away from any schools, colleges, or other sensitive areas. Also, as per Para 4(iii) of the Guidelines, 2010, it is stated that run-off during rain

from the proposed site, any water body, which is used by local people, remains at a minimum possible level. Para 4(iv) states that location of the stack yard should be in such an area that there is no public inconvenience for parking or movement of vehicles. It is submitted that in the present case, there is only one common road connecting the village to the main road, the old N.H.-42 and is frequently used by all the residents for commute. Therefore, during monsoon, due to over stacking of minerals beyond the capacity of the stack yard, surface run-offs get deposited on the common road causing huge inconvenience for the residents to commute to work and for children reaching school.

- F. Because according to the Standard Conditions mentioned in Guidelines, 2010, the Respondent No. 6 and 7 are not complying with the conditions provided under the Guidelines, 2010. It is submitted that as per Para 5 (b)(2) and Para 5(b)(3), it is required for the stack yard to have a boundary wall of minimum 3 meters height to prevent dust particles from being air borne and/or getting carried away with surface run off to nearby water bodies. Further, it is required that the height of material stack within storage areas must be kept below the height of the boundary wall at all times to prevent the material from being air borne. However, in the present scenario, although a boundary wall has been provided around the periphery of the stack yard, the height of the mineral stack yard exceeds the height of the wall causing immense dust emissions in the air.
- G. Because under Para 5(b)(5) and Para 5(b)(6) of the Standard Conditions, it is required that green belt of at least one row of trees shall be developed along the boundary of material storage yard, in case of stack-yards and railway siding which are

located in close proximity to villages and residential areas, a green belt of adequate width between the habitation and the stack-yard is recommended. Also, planting of trees all along the connecting road and regular grading of such road shall be carried out to prevent generation of dust due to movement of dumpers/trucks. However, a very inadequate green belt has been provided near the boundary of the storage yard which is unable to contain the dust pollution around the stack yard.

- H. Because Respondent No. 6 and 7 have made no efforts to deal with the issues even after several complaints from the residents. No dust suppression mechanism such as water sprinklers have been installed to control the issue of run-off in the village. Neither any efforts toward controlling air pollution have been made.
- I. Because the Nergundi Railway Siding (Respondent No. 8) is non-compliant with the Specific Conditions of the Consent to Operate granted to it dated 03.04.2023 which was valid until 31.03.2024. It is submitted that they have not renewed their Consent Order from the State Pollution Control Board (Respondent No. 2);
- J. Because the Consent to Operate granted to the Respondent No. 8 ought to be revoked and not be allowed to be renewed as there are several violations of the Specific Conditions mentioned in the CTO such as violation of Specific Condition Nos. 2,5,6,7,8,9,12,13 & 15 which all required the Respondent No. 8 to ensure that the loading, unloading and transportation of minerals occurred in an environmentally sound manner;
- K. Because in ***Aswini Kumar Dhal v. Odisha Pollution Control Board & Ors. (O.A. No. 41 of 2015)(EZ)***, this Hon'ble Tribunal, by order dated 25.05.2016, held that compliance of the conditions of the consent order granted by the State PCB is

the responsibility of the industry or the person on whose name the consent has been issued. The relevant portion is reiterated below:

"14. From the above, it would be abundantly clear that seeking consent from the PCB for establishment and operation of any siding, had become mandatory even if it was owned and operated by the Railway.

... The provisions of the Acts demonstrate the object and legislative intent to prohibit establishment or any activity, which would result in emission of toxic gases to the air, discharge of domestic, municipal or industrial effluents to land or water. 'Consent' under these laws is contemplated at two stages i.e., firstly, at the stage of establishing such plant, industry, etc. and secondly, at the time of putting the unit into operation. Thus, the law imposes dual obligation upon the person or industry.

Firstly, it has to take the consent of the Board and secondly, it must ensure adherence to the prescribed conditions/parameters of the laws in force and, the responsibility of complying with the laws is placed exclusively on the person or industry."

(Emphasis Supplied)

- L. That the Hon'ble Supreme Court of India had recently in ***Indian Oil Corporation Limited v. V.B.R. Menon & Ors.*** [2023 SCC Online SC 257] stated the purpose of obtaining the mandatory CTE and CTO under Section 21 of the Air Act, 1981 and stated that the procedural aspect of obtaining CTO after being granted CTE was to ensure that when the unit is granted CTO, it is on the condition that the unit ought to have satisfied all the conditions stated in the order of CTE. It is submitted that the CTO is granted only after the conditions granted under in CTE are fulfilled. Hence, any industry setting up their unit is ought to obtain CTE prior to obtaining CTO to ensure all the requirements in the CTE are fulfilled, and that the units are safe regarding air pollution, and against seepage to the ground water and soil. The relevant portion is reiterated below:

"43. Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 places restrictions, both on establishment and operation of any industrial plant located in an air pollution control area without previous consent of the Board. The legislative intent behind this provision would lead to decipher two concepts - one, the consent for the purpose of establishing an industrial plant while the other for operation of that plant. The purpose of this Section is to ensure that when a unit or an industrial plant is given consent to operate, the unit ought to have satisfied all the conditions stated in the order of consent to establish and would have installed the requisite effluent treatment plants and other anti-pollution devices to ensure that it causes no pollution."

M. That also, as per **State Pollution Control Board, Odisha v. M/s Swastik Ispat Pvt. Ltd., Appeal No. 68 of 2012 (PB)**, this Hon'ble Tribunal by order dated 9.01.2014, had held that:

"28. ...**Section 21 of the Air Act makes it mandatory that no person shall, without previous consent of the Board, establish or operate any industrial plant in an air pollution control area.** Section 21(1) of the Air Act is prospective while the proviso to this sub-section contemplates that even the existing units have to take permission/consent of the Board and make appropriate application for that purpose from the date of coming into force of this Act. The application for obtaining consent has to be dealt with expeditiously by the Board. Thus, this Act squarely applies to all industries, either existing or which are expected to be established in any air pollution control area. After following the prescribed procedure and making such inquiry as it may deem fit, the Board shall, by an order in writing and for reasons to be recorded in writing, grant the consent applied for subject to such conditions and for such period, as may be specified in the order or refuse such consent in terms of Section 21(4) of the Air Act. The State Board can cancel this consent or refuse further consent but it can do so only after granting a reasonable opportunity of being heard to the affected party. ..."

(Emphasis Supplied)

N. That in **Aswini Kumar Dhal v. Odisha Pollution Control Board & Ors. (O.A. No. 41 of 2015)(EZ)**, this Hon'ble Tribunal, by order dated 25.05.2016, held that compliance of the conditions of the consent order granted by the State PCB is the responsibility of the industry or the person on whose name

the consent has been issued. The relevant portion is reiterated below:

"14. From the above, it would be abundantly clear that seeking consent from the PCB for establishment and operation of any siding, had become mandatory even if it was owned and operated by the Railway.

...
16. The provisions of the Acts demonstrate the object and legislative intent to prohibit establishment or any activity, which would result in emission of toxic gases to the air, discharge of domestic, municipal or industrial effluents to land or water. 'Consent' under these laws is contemplated at two stages i.e., firstly, at the stage of establishing such plant, industry, etc. and secondly, at the time of putting the unit into operation. Thus, the law imposes dual obligation upon the person or industry.

17. Firstly, it has to take the consent of the Board and secondly, it must ensure adherence to the prescribed conditions/parameters of the laws in force and, the responsibility of complying with the laws is placed exclusively on the person or industry."

(Emphasis Supplied)

- O. Because the residents have been suffering from respiratory diseases such as Asthma, Bronchitis, Lung failure, cardiovascular diseases and kidney failure due to copious amount of dust pollution in the air from the loading/unloading and stacking of minerals from the railway siding and the mineral stack yard. Over the years, many of the residents had to either relocate from the village or had to pay huge amounts of medical bills to survive. It is submitted that a majority of the residents have been suffering from respiratory diseases such as Asthma, Bronchitis, Lung failure, cardiovascular diseases and kidney failure.
- P. Because due to extreme fugitive dust emission from the railway siding and the stack yard, the farmers are incurring huge losses constantly from damage to the crops. It is causing crop yield failure and affecting the livelihood of the farmers in the village.
- Q. Because the Respondent No.s 6, 7 and 8 are liable to pay for environmental damage as per the polluter pays principle. In the case of ***Bajri Lease Holder Welfare Society v. State of***

Rajasthan [2021 SCC OnLine SC 1043], the Hon'ble Supreme Court by judgement dated 11.11.2021, emphasized on the liability of the Polluter to compensate for victims of pollution and ecological degradation. The relevant portion is reiterated below:

*"16. ...Compensation / penalty to be paid by those indulging in illegal sand mining cannot be restricted to the value of illegally-mined minerals. The cost of restoration of environment as well as the cost of ecological services should be part of the compensation. **The "Polluter Pays" principle as interpreted by this Court means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. Remediation of the damaged environment is part of the process of "Sustainable Development" and as such the polluter is liable to pay the cost to the individual sufferers as well as the cost of reversing the damaged ecology.**"*

(Emphasis Supplied)

- R. Because the Respondent No.s 6,7 and 8 are liable for the persistent ecological damage caused by the illegal operation of the stack yard by Respondent No. 6 and 7, and the operation of the railway siding by Respondent No. 8, in gross violation of the CTO conditions issued to it by the Odisha State Pollution Control Board, based on the method of computation of the scale of compensation to deal with cases of violation had been prepared by the Central Pollution Control Board dated 30.05.2019 titled "*Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund*" in ***Paryavaran Suraksha Samiti & Anr. v. Union of India & Ors. (O.A. No. 593 of 2017)***.
- S. Because the Applicants herein had sent a representation dated 06.07.2022 to the Respondents objecting to the loading/unloading of minerals at the railway siding of Respondent No. 8 and the private stack yard operated by

Respondent No. 6 and 7 to and from the Nergundi Railway Siding and the effects on the health and environment of the people residing there. The representation also prayed for immediate remedial measures to be taken for the betterment and benefit to protect the residents. However, no response had been provided to the Applicants, nor any action had been taken by the respective authorities till date.

LIMITATION

That the Applicants submit that the Respondent Nos. 6 and 7 commenced the illegal stacking operation in mid-2021 in non-compliance to the "Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, 2010" issued by the Odisha State Pollution Control Board which requires consent to be obtained under Section 25 of Water (Prevention and Control of Pollution) Act, 1974, Section 21 of the Air (Prevention and Control of Pollution) Act, 1981. Further, the Respondent No. 8 is operating on CTO granted by the Respondent No. 2 but is non-compliant with the conditions granted under it. The present application has been filed under Section 14 and 15 read with Section 20 of the National Green Tribunal Act, 2010. The railway siding is violating the conditions granted under the renewed CTO dated 03.04.2023. Further, the private stack yard is operating without the mandatory CTE and CTO and is also flouting the siting conditions of the Guidelines, 2010 causing extreme air pollution in the region and hence, they are constituting a fresh cause of action everyday according to ***Forward Foundation v. State of Karnataka [2015 SCC OnLine NGT 5]***. Hence, the application is within limitation.

PRAYER

In light of the above stated facts and circumstances, it is most humbly and respectfully prayed that this Hon'ble Tribunal may be pleased to:

- (i) Direct the Respondent No. 6 and 7 to stop all illegal operation of mineral stack yard, adjacent to the Bilteruan village and near the Nergundi Railway Siding in Cuttack, Odisha;
- (ii) Pass an order thereby imposing environmental compensation as per 'Polluter Pays Principle' and initiating strict action against Respondent no. 6 and 7 for violating the provisions under Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and Guidelines for Environmental Management in Mineral Stack Yards and Railway Sidings, 2010;
- (iii) Direct the Respondent No. 8 not to operate the railway siding without obtaining valid consent and ensuring compliance of the consent condition and requirement under the Guidelines dated 16/4/2010 issued by State Pollution Control Board;
- (iv) Pass an order thereby imposing environmental compensation on the Respondent No. 8 as per the 'Polluter Pays' Principle, for causing harm to the environmental harm;
- (v) Direct the Respondents take proper steps with respect to restoration of the area to its original position and protecting it from further illegal stacking activity;

(vi) Pass any other or further Order as this Hon'ble Tribunal may deem fit in the facts and circumstances of the resent case.

Saheen Tarannum
APPLICANT NO.1

Akshaya Kumar Jena.
APPLICANT NO.2

THROUGH

Ritwick Dutta

RITWICK DUTTA

Rahul Choudhary

RAHUL CHOUDHARY

Kaustav Dhar

**KAUSTAV DHAR
ADVOCATES**

COUNSELS FOR THE APPLICANT
N-73, Lower Ground Floor, Greater Kailash-I,
New Delhi- 110048
Phone:- 9312407881
Email: dclaw160@gmail.com

VERIFICATION

Verified by Saheen Tarannum, aged 37 years, D/o Late Abdul Azad Khan, R/o Village Bilteruan, Po-Harianta, District Cuttack, Odisha- 754025, do hereby verify that the contents of Paragraphs 1 to 41 are true to my personal knowledge and nothing material has been concealed therefrom.

Saheen Tarannum
APPLICANT NO.1

VERIFICATION

Verified by Akshaya Kumar Jena, aged 46 years, S/o Sauri Jena, R/o Village Bilteruan, Po-Harianta, District Cuttack, Odisha- 754025, do hereby verify that the contents of Paragraphs 1 to 41 are true to my personal knowledge and nothing material has been concealed therefrom.

Akshaya Kumar Jena.

APPLICANT NO.2



**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN BENCH AT KOLKATA**



ORIGINAL APPLICATION NO. OF 2023

IN THE MATTER OF:

SAHEEN TARANNUM & ANR.

...APPLICANTS

VERSUS

STATE OF ODISHA & ORS.

...RESPONDENTS

AFFIDAVIT

I, Saheen Tarannum, aged about 37 years, D/o Late Abdul Azad Khan, R/o village Bilteruan, Po-Harianta, Dist. Cuttack, Odisha- 754025, presently at Tarbha, do hereby solemnly affirm and declare as under:

1. That I am the Applicant in the above titled Application and I am conversant with the facts and circumstances of the case and competent to swear this affidavit.
2. That the contents of the accompanying Application are true and correct and nothing material has been concealed therefrom.

From 25/5/23
S.B. Mahapatra
Notary, Sonepur

Saheen Tarannum
DEPONENT

VERIFICATION

Verified on this 25th day of May 2023 that the contents of the present Affidavit are true and correct to my knowledge and belief and nothing material is concealed therefrom.

DECLARATION

The declarant having been identified by B.N. Mishra Advocate of Tarbha solemnly affirmed before me on this the 25th day of May 2023 At 7:30 A.M./P.M. The contents having been read over and explained to the declarant who has perfectly understood the contents to be true of the affidavit.

From 25.05.23
S.B. MAHAPATRA
NOTARY, SONEPUR

Saheen Tarannum
DEPONENT

B. Mishra
25/5/23
Biswanath Mishra
Advocate
Pr. No. - O-1915/03

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN BENCH AT KOLKATA
ORIGINAL APPLICATION NO. OF2023**

IN THE MATTER OF:

SAHEEN TARANNUM & ANR. ...APPLICANTS

VERSUS

STATE OF ODISHA & ORS. ...RESPONDENTS

AFFIDAVIT

I, **AKSHAYA KUMAR JENA**, aged about 46 years, S/o Sauri Jena, R/o- Village Bilteruan, Po-Harianta, Dist. Cuttack, Odisha- 754025, presently at Bilteruan, do hereby solemnly affirm and declare as under:

1. That I am the Applicant in the above titled Application and I am conversant with the facts and circumstances of the case and competent to swear this affidavit.
2. That the contents of the accompanying Application are true and correct and nothing material has been concealed therefrom.

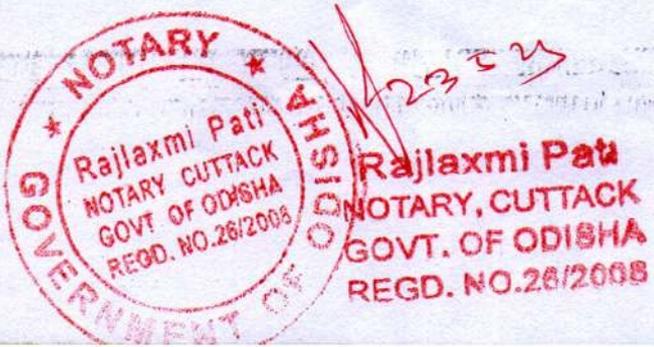


Akshaya Kumar Jena
DEPONENT

VERIFICATION

Verified on this **23rd day of May 2023** that the contents of the present Affidavit are true and correct to my knowledge and belief and nothing material is concealed therefrom.

Identified by
Adv. Jena
DEPONENT



ANNEXURE A-1



OFFICE OF THE GRAMPANCHAYAT
 HARIDANTA
 ANNEXURE A-2

ପ୍ରାନ୍ତସ୍ତୁ,

ଶ୍ରୀମତୀ ସରଳତାମାମ୍ ସେକ୍ଟରୀ

ପ୍ରା: ମ: କଟକେଡୁଆ

ପୋ: ମୁହିଅହା, ବି: ବରକ ଗ୍ରା: ୭୫୪୦୩୫.

ମହାଶୟ,

ଆପଣ ମାଗିଥିବା RTI ଦ୍ଵାରା ଡାହାଁ ବ୍ୟୟ ୨୦୧୦ ଓ ୨୦୨୨

Sept. ମାସରେ ପ୍ରକୃତ ବ୍ୟୟାମାତ୍ର ଲେଖା ଧରୁ ,

୧. ମୁହିଅହା ପ୍ରା: ମ ଅଧିକାରୀ ଉପାହାରୀ ଛତା. ବିଭାଗ ଛତା ଧରି ଛତା ନାମରେ ଲେଖା ରହିଛି ,

୨. ପ୍ରା: ମ ଉ (ଆରୁ ଓ ବ୍ୟୟ) ବିଭାଗ ଫାଇଲ୍ କୁ ଉପାଦାନୀ ଆନୁ ଆସିବି କି ତା ବିଷୟରେ କାର୍ଯ୍ୟକ୍ରମ ୨୦୧୦ ଓ ୨୦୨୨ August ୧୫ ତାରିଖ ମଧ୍ୟରେ NOC ଦେଖାଯାଇଛି.

୩. August ୧୫.୮.୨୨ ଦିନରେ କମ୍ ୫ Nos. କୁ NOC ଦିଆଯାଇଛି.

① Miltech Metals & ORBS PVT, LTD
Mouza - Neria

<u>Khata No.</u>	<u>Plot No</u>	<u>Area</u>
୦୨ & ୧୭୦/୧୨୦	୬୩ & ୬୩/୩୬୨	୭୫ ଥର

② M/s Golden Coal Depot.

Mouza: Bitterwan.

<u>Khata No.</u>	<u>Plot No</u>	<u>Area</u>
୨୫୧/୬୭	୫୫୦	୫୦ ଥର

3) ESKAYS SERVICES, Gypsum Depo

MOUZA: Nelia

Khata NO.

Plot NO.

Area

129	37	4-0.51 D
97	38	4-0.31 D
97	39	4-0.30 D.
190/89	81/325	4-0.27 D

4) SENDROZ IMPEX LIMITED, Coal Depo

NO. Name

Khata NO.

Plot No.

Area

1. Jayanta Ku Pradhan	147/49	214	0.220
2. Subanta Ku. Pradhan	85	312	0.600
3. Jayanta Ku Pradhan.	83	316	0.110
4. _____ do _____	142/43	215	0.420
5. _____ do _____	142/127	213	0.190
6. Jonesh Pradhan	142/129	294	0.260
7. _____ do _____	142/153	295	0.240
8. _____ do _____	142/152	295/319	0.230
9. Jayanta Ku. Pradhan	142/106	296	0.310
10. Smt. Nehadita Pradhan.	142/45	288/384	0.230
11. Pravarakar Abhoi	142/108	296	0.600
12. Jayanta Ku. Pradhan	21	286	0.200
13. _____ do _____	84	313	0.400

ସମସ୍ତ ପ୍ରକାରର NOC ଅନୁମତି ପ୍ରାପ୍ତ
 ସମସ୍ତ ପ୍ରକାରର ସମ୍ପତ୍ତି @ 1991 ମସିହା
 ଅନୁମତି.

Arakshite Sahoo
 2/11/22
 P.D. Oem P.F. 20
 Executive Officer
 Haldia G.P.

Office of the Gram Panchayat, Harianta

To,

Sri Ghanshyam Behra
At Bilteruan, N-Harianta,
District Cuttack – 754025 (Odisha)

Sir,

The office has sent you as per your request by RTI Act report August, 2010 to September, 2022.

1. The details about coal depot, gypsum depot and sand depot under Harianta Gram Panchayat which is Tangi Choudwar Block, Cuttack District, Odisha.
2. There are (income and expenditure) no income in General Fund of Harianta Gram Panchayat and there are no given NOC by Harianta Gram Panchayat above the depot between the August, 2010 to 15.08.2022.
3. But on dated 18.08.2022 there are given four NOC by Harianta Gram Panchayat and the following names who got NOC:

1) Miltech Metals & Ores Pvt. Ltd.

Mouza – Nelia

Khata No.	Plot No.	Area
02 & 190/120	63 & 63/362	75 Dec.

2) M/s Golden Coal Depot

Mouza – Bilteruan

Khata No.	Plot No.	Area
251/67	450	80 Dec.

3) Eskays Services, Gypsum Depot

Mouza – Nelia

Khata No.	Plot No.	Area
129	37	A.0.51 D
97	38	A.0.31 D
97	39	A.0.30 D
190/89	81/335	A.0.27 D

4) Sendoz Impex Limited, Coal Depot

No.	Name	Khata No.	Plot No.	Decimal
1.	Jayanta Ku. Pradhan	147/49	214	0.220
2.	Susanta Ku. Pradhan	85	312	0.600
3.	Jayanta Ku. Pradhan	83	316	0.110
4.	---do---	142/43	215	0.420
5.	---do---	142/127	213	0.190
6.	Janesh Pradhan	142/129	294	0.360
7.	---do---	142/153	295	0.240
8.	---do---	142/152	295/319	0.230
9.	Jayanta Ku. Pradhan	140/106	296	0.300
10.	Smt. Nehadita Pradhan	142/145	288/384	0.230
11.	Pravakar Bboi	142/108	292	0.460
12.	Jayanta Ku. Pradhan	21	286	0.200
13.	---do---	84	313	0.400

As per the rules after conducting a pally/village meeting the
NOC issue and it is renewal in a year.

Arakhita Sahu
2/11/22
PIO-Cum-PEO
(Stamp)

//TRANSLATED COPY//

Arakhita Sahu

ANNEXURE A-3





t.c.

@handy7

ANNEXURE A-4

**GUIDELINES FOR ENVIRONMENTAL
MANAGEMENT IN MINERAL STACK YARDS
AND RAILWAY SIDINGS**

16th April -2010



STATE POLLUTION CONTROL BOARD, ORISSA

Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar – 751 012, INDIA

GUIDELINES FOR PROCESSING OF CONSENT APPLICATION FOR MINERAL STACK YARDS AND RAILWAY SIDING

Transportation, storage, loading and unloading of minerals at Stack-yards / Railway sidings have considerable air pollution potential. These activities have been brought under consent administration of the Board under **RED category** as per **Board's Resolution No. 3369 dt. 16.2.08**. Applications for grant of consent to these activities are to be disposed of by concerned Regional Offices as per the **delegated power vide letter No. 2186 dt. 31.1.08**. The Board issued guidelines to regulate stack-yards and railway siding in April 2008. The Board received certain submissions from various stakeholders indicating certain ambiguity and operational difficulties in implementing the guidelines. Thus to further streamline it and to make it implementable, a consultative meeting with all stakeholders was convened on 31.10.09 and their views were considered. In order to facilitate timely disposal of applications and to make the procedure uniform, the following guidelines are issued. These guidelines superceed the guidelines issued in April 2008 vide Board's letter no.9718 Dt. 24/04/08 and the additional guidelines issued vide Board's letter no.17924 Dt. 29/10/09

1. DEFINITION:

1.

- i) **Stack-yard** : Stack-yard means mineral stack yard over an area, which is used to receive, store either for a short period or long period, load / unload and dispatch minerals from the site and requires a trading license under Orissa Mineral (Prevention of Theft, Smuggling and Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) Rules 2007.
- ii) **Railway-siding** : A railway-siding is a place/ area which is used to receive, temporarily store and load / unload material in the rakes and dispatch materials.
- iii) **Cluster of stack-yards** : A cluster of stack-yards means a group of stack-yards having at least one common boundary, who enter into an agreement among them to remain collectively responsible to maintain the pollution control system while operating the stack-yards.

2. **APPLICABILITY:**

- i) The railway-sidings ,stack-yards and clusters of stack-yards of minerals, which are already established and operating **prior to the date of Board's Resolution i.e 16.2.08** are required to only obtain consent to operate from the Board.
- ii) Railway-sidings ,stack-yards and clusters of stack-yards, which are established **after the date of Board's Resolution i.e 16.2.08** or, to be established thereafter are required to obtain consent to establish first and then consent to operate from the Board.
- iii) For cluster of stack-yards the proponent will apply separately depositing prescribed fee for each stack-yard and submit all the application in a single bunch along with original agreement and undertaking that, they will remain collectively liable for complying to the conditions stipulated by Board. Violation of any condition by any one member of the cluster of stack-yards shall be treated as a violation.
- iv) Mineral stack-yard or railway-siding located inside the premises of industry / mines which are already covered under consent administration will not require separate consent.
- v) The consent granted under section 25 of Water (Prevention & Control of Pollution) Act. 1974 and section 21 of Air (Prevention & Control of Pollution) Act. 1981 shall be subject to Trade License issued under Orissa Mineral (Prevention of Theft, Smuggling and Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) Rules 2007.
- vi) The applicant can make application for consent to operate for a minimum period of one year; however the validity of consent shall be co-terminus with the financial year.

3. **APPLICATION FORM :**

The applicant shall apply for consent to establish and consent to operate (as applicable) in the prescribed form of the Board alongwith additional information in the format as per **Annexure-I**.

4. **SITING CONSIDERATIONS (MINERAL STACK-YARD) :**

Consent to Establish applications for mineral stack-yards shall be considered on the basis of the following site suitability criteria.

- i) The boundary of proposed site shall be at an aerial distance of at least 100 meter from State/National Highway.
- ii) The boundary of the proposed site shall be at an aerial distance of at least **500 meter away from** Schools, Colleges, Hospitals, Archeological monuments, and other sensitive areas.
- iii) It shall be ensured that run-off during rain from the proposed site, any water body, which is used by local people, remains at minimum possible level.
- iv) Location of the stack-yard should be such that there is no public inconvenience for parking or movement of vehicles.
- v) The applicant for consent to establish shall obtain a NOC from Sarpanch following a gram sabha if it is proposed in a rural area or obtain NOC from the concerned ULB in case of urban area.
- vi) In case of new cluster the proposed site shall conform to the above stipulations for siting as a whole.

5. **ENVIRONMENTAL ASSESSMENT :**

a) **Check list of Environmental Issues :**

The following issues shall be taken into consideration for environmental assessment.

- i) Siting of facility and proximity of nearby dwellings.
- ii) Compatibility of the activities with surrounding land use.
- iii) Need for isolating the operational areas or any additional precautionary measure to be undertaken.
- iv) Likelihood of the materials proposed to be handled to create dust nuisance.
- v) Proposed dust control measures.
- vi) Storm water management system and disposal practice.
- vii) Possibility of discharge to nearby water bodies.

- viii) Bunding of storage area and its appropriateness.
- ix) Impact on nearby residents, beyond normal working hours.

b) **Standard conditions (RAILWAY SIDING AND MINERAL STACK YARDS) :**

The following conditions may be imposed for pollution control while granting consent to establish / consent to operate for railway siding and mineral stack-yards. These conditions are only indicative and not exhaustive.

House Keeping:

1. All entry points, internal roads and loading/unloading areas must be adequately compacted for movement of heavy vehicles by using low permeability material and be cleaned regularly to minimize potential of dust generation and off-site impact.
2. A boundary wall of at least **3 meter** height shall be constructed along the periphery of the mineral stack-yard to prevent the dust particles from being air borne and / or getting carried away with surface run off to nearby water bodies.
3. The height of material stack within storage areas must be kept below the height of the boundary wall at all times to prevent the material from being air borne.
4. All mineral storage areas containing fines or dusty materials must be either:
 - covered with tarpaulins when not in use, or
 - fitted with Water Sprinkling / Dry fog systems.
5. Green belt of at least one row of trees shall be developed along the boundary of material storage yard., in case of stack-yards and railway siding which are located in close proximity to villages and residential areas, a green belt of adequate width between the habitation and the stack-yard is recommended.

6. Planting of trees all along the connecting road and regular grading of such road shall be carried out to prevent generation of dust due to movement of dumpers/trucks.
7. Adequate care shall be taken to prevent creation of ruts and pot holes in the connecting roads.
8. Proper house keeping at the material storage areas, loading & dispatch areas, service facilities, etc., shall be practiced.

Air Pollution Control:

9. Dust suppression arrangement shall be provided on approach road by using water sprinklers / mobile water tanker.
10. Wheel wash facilities are to be provided to minimize transfer of mud from unpaved approach roads to main paved and/or public roads.
11. At the material storage areas, atomized stationery mist spray of water or conditioning of material with water shall be practiced to prevent dust getting air borne during loading/unloading.
12. Sprinkler systems must be maintained and be kept in a good operable condition at all times.
13. Appropriate transfer chutes shall be provided at material discharge points at material storage areas, loading points etc., to minimize the discharge height and spread of air borne dust.
14. Appropriate preventive measures shall be taken for control of fire hazards at the stack-yard / Railway-Siding handling coal.
15. Smoke emission from heavy duty vehicle operating in the stack-yard / Railway-Siding shall conform to the standards prescribed under the Motor Vehicle Rules, 1989.
16. Ambient Air Quality inside the premises shall conform to the National Ambient Air Quality Standard prescribed for industrial and mixed used area under the Environment Protection Act, 1986.

Water Pollution Control :

17. Domestic effluent shall be discharged to soak pit through septic tank constructed as per BIS specifications.
18. Garland drain shall provided along the boundary wall at the appropriate places depending upon the slope of the area, inside the mineral stack-yard. Provision shall be made for collection of wash water from the garland drain and the water, so collected shall be treated in a sedimentation tank for further use inside the premises for green belt or water sprinkling etc. In case of a cluster, a common facility shall be developed, operated and maintained by the cluster operators.
19. In case the wastewater contains any substance which is harmful to the environment, the same shall be treated to remove the substance so as to meet the prescribed norms.

Good Operating Practice:

20. Speed limit of dumpers/trucks inside the premises shall not exceed **10 kmph**.
21. Occupiers of the stack-yard / Railway siding shall ensure that vehicles used have valid **“Pollution Under Control (PUC)” certificate**.
22. During transportation of material by trucks / tippers / wagons through public roads, the vehicles shall be properly covered with tarpaulin sheets.
23. Provisions of the E(P) Act, 1986 and the relevant rules framed thereunder, shall be applicable where necessary.

The concerned Regional Officer may stipulate site specific additional conditions, if he feels so, after assessing ground reality and local conditions.

c) **Annual Return :**

Every operating mineral stack-yards and Railway sidings shall submit an annual return to concerned Regional Office in the prescribed format as per **Annexure – II** by **31st May every year** incorporating the quantities and types of materials handled during the preceding financial year (**i.e. 1st April to 31st March**). Stack-yards in a cluster shall prepare individual returns and submit those in a single bunch.

ANNEXURE – I



STATE POLLUTION CONTROL BOARD, ORISSA

Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII,
Bhubaneswar – 751 012, INDIA

ADDITIONAL INFORMATION

A. Mineral Stack yard

B. Railway Siding

Tick appropriate box

1. GENERAL INFORMATION :

1.1 Name of the applicant :

Father's/husband's name :

Designation

1.2 Mailing Address :

e-mail :

Telephone No. :

Mobile phone No

Fax :

1.3 Does the activity relate to :

1.3.1 New	Yes	<input type="checkbox"/>	No.	<input type="checkbox"/>
1.3.2 Expansion	Yes	<input type="checkbox"/>	No.	<input type="checkbox"/>
1.3.3 Existing	Yes	<input type="checkbox"/>	No.	<input type="checkbox"/>

2. SITE DETAILS :

2.1 Area of Mineral Stack-yard /Railway Siding in _____ Sq.m/Sq.ft/Acre.

✓ Encl : Patta and/or other relevant land document.

2.2 Site Address	Plot and Khata no	Village	Tehsil	District
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

✓ Enclose a revenue site map

2.3 Name of the person/ company :
(owner of the company)

2.4 Distance from the following features (Within 500 m radius.)

Features	Distance	Details
Human settlement / villages		
Schools / Colleges		
National/state highway		
Hospitals		
Rivers / Streams / Ponds		
Other sensitive area		

✓ Indicate these feature in the site map :

2.5 Length of approach road from nearest Highway (NH/SH) / Railway connectivity / port :

2.6 Category of approach road to be used for transportation :

2.7 Name of the villages through which approach road from NH/SH passes

3. **ACTIVITY DETAILS :**

3.1 Type of material to be handled :

Sl. No.	Type of material	Qty. per year.	Maximum storage quantity at any point of time
1.			
2.			
3.			
4.			

3.2 Mode of transport :

Incoming mode : By truck/Tipper
 : By rake,
 By tractor
 : Any other means.

Outgoing mode : By truck
 : By rake,
 By tractor
 : Any other means.

3.3 Manner of loading / unloading :

3.3.1 Manual Loading :

- ✓ Maximum daily receipt of material :
- ✓ Maximum daily dispatch of material :
- ✓ Nos of people to be engaged for loading/unloading :

3.3.2 Mechanized loading / unloading :

Type of machines	Nos.	Capacity
Loader, Dumper		
Stacker reclaimer		

4. ENVIRONMENTAL MANAGEMENT PLAN :

Sl. No.	Environmental issues *	Already practiced if applicable	Proposed
01.	Air pollution (fugitive dust emission)		
02.	Water Pollution (Run off Water Management)		
04.	Plantation		
05.	Others		

[* As applicable]

CHECK LIST FOR DOCUMENTS

1.	Revenue site map indicating all features.
2.	Patta/ Lease deed/ Agreement/ and other relevant land documents if any in support of proof of ownership.
3.	NOC from the local bodies
4.	Permission from Railway authority for railway siding.

Verification : **The data and information given in this form are true to the best of my knowledge and belief.**

Date :

**Signature of Applicant*
With full name & address**

Place :

[* Owner or occupier]

**Given under the seal of organization
onbehalf of whom the applicant is signing**

ANNEXURE – II

ANNUAL RETURN

Name of the unit :

Address :

Telephone No :

E-mail :

Consent order No. :

Consent valid upto :

Annual Return for the year ending 31st March:

Months	Type of material *	Opening stock (MT)	Receipt	Dispatch	Closing stock	Remark
April						
May						
June						
July						
August						
September						
October						
November						
December						
January						
February						
March						

* Attach separate sheet for additional material.

Certified that the above return is for the period from

.....

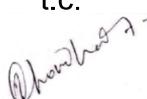
Date :

Place :

SIGNATURE*.....**DESIGNATION**.....

[* Owner or occupier]

t.c.



ANNEXURE A-5



t.c.

@harish7

ANNEXURE A-6



t.c.

Handwritten signature

ANNEXURE A-7





t.c.

@hambast7-

TEL/ FAX: 0671-2314255
 E-mail: rospcb.cuttack@ospcbboard.org
 Website: www.ospcbboard.org



OFFICE OF THE REGIONAL OFFICE, CUTTACK
STATE POLLUTION CONTROL BOARD, ODISHA

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]
 586, SURYAVIHAR, LINK ROAD, CUTTACK-753012

No. 848 / GSY - 03

Date 03.04.2023

CONSENT ORDER NO. RO/CTC/CTO. 24/14/APC/WPC

Sub: Consent for discharge of sewage & trade effluent under Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & Section 21 of Air (Prevention & Control of Pollution) Act, 1981.

Ref: Your Online application No. 4686836, dt. 23.03.2023 for consent to operate and this office Consent to Operate order issued vide letter No. 572/GSY-03, dtd. 29.03.2022.

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 & under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed there under to:

Name of the Industry: **M/s. NERGUNDI RAILWAY SIDING OF EAST COAST RAILWAY, GOVERNMENT OF INDIA**

Name of the Occupier & Designation: **Sri Subash Chandra Sahoo, Station Superintendent**

Address: **At Nergundi Railway Siding at Nergundi Railway Station, Po: Nergundi, Dist. Cuttack, Odisha.**

This consent order is valid for the period up to **31.03.2024**.

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney / stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of Products Manufactured:

Sl. No.	Product	Quantity
1	Stacking and Transportation of Phospo Gypsum, G. Slag & Coal	45035 MT/Month (Maximum 9000 MT at any point of time)
2	Quartz	3000 TPM
3	Cement Clinker	24,000 MT/Month (Maximum 8000 MT at any point of time)

P.T.O



B. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Prescribed standard
1	Domestic waste water	Soak pit via septic tank	-	-
2	Run off from stack yard	Natural nallah via settling Tank & earthen pond	-	pH : 6.5-8.0 TSS : 100 mg/L

C. Emission permitted through the following stack subject to the prescribed standard:

Chimney Stack No.	Description of stack.	Stack height (m)	Quantity of emission	Prescribed standard.		
				PM	SO ₂	NO _x
-	-	-	-	-	-	-

The unit shall maintain the prescribed Ambient Air & Noise Level for industrial Area within its premises

D. Disposal of solid waste permitted in the following manner

Sl. No.	Type of solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.
-	-	-	-	-	-	-

Contd.....



 CONSENT ORDER

E. GENERAL CONDITIONS FOR ALL UNITS.

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review / variation / revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations is deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity / quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives / orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order / directives issued at any time and / or violation of the terms & conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law / Act.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.

Cndt...



CONSENT ORDER

12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
 - a) Industrial cooling, spraying in mine pits or boiler feed,
 - b) Domestic purpose.
 - c) Process.
13. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharge is not fit for the domestic use / bathing.
14. Storm water shall not be allowed to mix with the trade and / or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys / stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provisions of the Act or Rules made therein.

Contd...



CONSENT ORDER

24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and / or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention & Control of Pollution) Act, 1974 (as amended).
28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge / emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions / stop the operation of the plant. Report of such accidental discharge / emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks / chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant / plants of the factory which is likely to result in increased effluent discharge / emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board so as no to cause fugitive emission, dust problems through leaching etc. of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :

Cntd...



CONSENT ORDER

- i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be de-toxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The de-toxication or sealing and burying shall be carried out in the presence of Board's authorized person only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
 37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
 38. The applicant, his / heirs / legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
 39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
 40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
 41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21A of Air (Prevention & Control of Pollution) Act, 1981.
 42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
 43. The Board reserves the right to revoke / refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify / stipulate additional conditions as deemed appropriate.

Contd...

E. SPECIAL CONDITONS (To be complied along with prescribed guide lines):

1. **The unit shall operate the railway siding for the products assigned in this Consent to Operate Order and shall not handle any other products.**
2. The height of the boundary wall constructed along the periphery of the railway siding (mineral storage area) shall be increased of adequate height within 03 months to prevent the dust particles from being air borne.
3. Under normal circumstances, activities like stacking, loading & unloading of Phospo Gypsum Ore shall be suspended during 15th June to 31st October (During monsoon period).
4. Phospo Gypsum shall be stored for 24 hours in the siding. The unit shall vacant the siding within 24 hours for shifting to the final destination.
5. The materials shall be stored on concrete platform at siding. Under no circumstances stacking shall be carried out side the concrete platform.
6. The unit shall provide garland drain along with boundary wall at the appropriate places depending upon the slope of the area inside the railway siding. Provision shall be made for collection of waste water from the garland drain and the water so collected shall be treated in a settling tank for further use inside the premises for green belt and dust suppression in the stack yard.
7. To collect the surface run off generated during the monsoon and other period the unit shall provide an earthen pond and store/treat the water before discharge to outside.
8. The unit shall adopt adequate dust suppression measures to suppress fugitive emission during loading, unloading and transportation of materials.
9. All entry points, internal roads and loading/ unloading areas must be made worthy for movement of heavy vehicles by using low permeability material (i.e. concrete or bitumen) and can be cleaned regularly to minimize potential for dust generation and off-site impact.
10. Speed limit of dumpers/ trucks inside the siding shall not exceed 10 kmph.
11. Occupiers of the railway siding shall ensure that vehicles used have valid "Pollution Under Control (PUC)" certificate.
12. During transportation of material by trucks/tippers/wagons through public roads the vehicle shall be properly covered with tarpaulin sheets.
13. A green belt all along the boundary wall at siding area shall be properly developed and maintained.
14. Proper housekeeping at the material storage areas, loading and dispatching area, service facility etc. shall be practiced.
15. Nergundi Railway siding shall provide a test well at the siding for periodical analysis of ground water contamination if any during the storage and handling of Phospo Gypsum.

Contd.....



16. Necessary space should be provided within its stack yard premises for parking of trucks/ tippers etc. to be used for transportation to avoid any parking on NH & subsequent traffic jam.
17. The unit shall abide by provisions of the E(P) Act, 1986 and the relevant rules framed there under.
18. The unit shall submit an Annual Return in the prescribed format as per Annexure-II by 31st May every year incorporation the quantity and type of materials handled during the preceding financial year (i.e. 1st April to 31st, March).
19. The unit shall submit a declaration by 30th April every year that all the pollution control systems are in good condition and are being maintained properly, the emissions and effluent are conforming to the prescribed standard, and all the consent have been complied with.
20. The Board reserves the right to revoke/ refuse consent at any time during this period in case any violation is observed or to modify / stipulate additional conditions as deemed appropriate.
21. The units has to undertake that, incase of consent fee is revised upward during this period, they shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board, the consent order will be revoked without prior notice.

The occupier must comply with the conditions stipulated in section A, B, C, D, E and F to keep this consent order valid.

Encl: Guideline.

Banshi

REGIONAL OFFICER

To,

Sri Subash Chandra Sahoo, Station Superintendent,
M/s. Nergundi Railway Siding of East Coast Railways
At: Nergundi Railway Station, Po: Nergundi
Dist: Cuttack, Odisha

Memo No. 849 / Dt. 03.04.2023

Copy forwarded to

1. Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar
2. Collector & District Magistrate, Cuttack
3. General Manager, District Industries Centre, Cuttack
4. Dy. Director of Mines, Cuttack Circle, Cuttack
5. Guard File

Banshi

REGIONAL OFFICER



CONSENT ORDER

**GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENT POLLUTANTS PART - A :
EFFLUENTS.**

Sl. No.	Parameters	Standards			
		Inland surface	Public sewers	Land for Irrigation	Marine Coastal Areas
1	2	3			
		(a)	(b)	(c)	(d)
1	Colour & odour	Colourless /Odourless as far as practicable	-----	See 6 of Annex. 1	See 6 of Annex.1
2	Suspended solids (mg/l)	100	600	200	a. For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3	Particular size of SS	Shall pass 850	-----	-----	
4	-----	-----	-----	-----	
5	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6	Temperature	Shall not exceed 5°C above the receiving water temperature.	-----	-----	Shall not exceed 5°C above the receiving water temperature.
7	Oil & Grease mg/l max.	10	20	10	20
8	Total residual chlorine	1.0	-----	-----	1.0
9	Ammonical nitrogen (as N) mg/l max.	50	50	-----	50
10	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	-----	-----	100
11	Free ammonia (as NH ₃) mg/l max.	5.0	-----	-----	5.0
12	Biochemical Oxygen Demand (5 days at 20°C) mg/l max.	30	350	100	100
13	Chemical Oxygen Demand mg/l max.	250	-----	-----	250
14	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15	Mercury (as Hg) mg/l max.	0.01	0.01	-----	0.001
16	Lead (as pb) mg/l max.	0.01	1.0	-----	2.0
17	Cadmium (as Cd) mg/l max.	2.0	1.0	-----	2.0
18	Hexavalent chromium (as Cr ⁺⁶) mg/l max.	0.1	2.0	-----	1.0
19	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0

20	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22	Selenium (as Sc) mg/l max.	0.05	0.05	-----	0.05
23	Nickel (as Nil) mg/l max.	3.0	3.0	-----	5.0
24	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25	Fluoride (as F) mg/l max.	2.0	15	-----	15
26	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28	Phenolic compounds (as C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29	Radioactive Materials a) Alpha emitter micro curle/ml. b) Beta emitter micro curle/ml.	10 ⁷ 10 ⁶	10 ⁷ 10 ⁶	10 ⁸ 10 ⁷	10 ⁷ 10 ⁶
30	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32	Iron (as Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2mg/l
34	Nitrate Nitrogen	10 mg/l	-----	-----	20 mg/l



CONSENT ORDER

NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂) µg/m ³	Annual *	50	20	-Improved west and Gaeke
		24 Hours **	80	80	- Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂) µg/m ³	Annual *	40	30	- Modified Jacob & Hochheiser (Na-Arsenite)
		24 Hours **	80	80	- Chemiluminescence
3.	Particulate Matter (size less than 10 mm) or PM ₁₀ µg/m ³	Annual *	60	60	- Gravimetric TOEM
		24 Hours **	100	100	- Beta Attenuation
4.	Particulate Matter (size less than 2.5 mm) or PM _{2.5} µg/m ³	Annual	40	40	- Gravimetric TOEM
		24 Hours	60	60	- Beta Attenuation
5.	Ozone (O ₃) µg/m ³	8 Hours **	100	100	- UV Photometric
		1 Hours **	180	180	- Chemiluminescence - Chemical Method
6.	Lead (Pb) µg/m ³	Annual *	0.50	0.50	- AAS/ICP method after sampling on EMP 2000 or equivalent filter paper.
		24 Hours **	1.0	1.0	- ED-XRF using Teflon filter
7.	Carbon Monoxide (CO) mg/m ³	8 Hours **	02	02	- Non Dispersive Infra Red (NDIR)
		1 Hours **	04	04	Spectroscopy
8.	Ammonia (NH ₃) µg/m ³	Annual *	100	100	- Chemiluminescence
		24 Hours **	400	400	- Indophenol Blue Method
9.	Benzene (C ₆ H ₆) µg/m ³	Annual	05	05	- Gas Chromatography - based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m ³	Annual *	01	01	- Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m ³	Annual *	06	06	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper.
11.	Nickel (Ni), ng/m ³	Annual *	20	20	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper.

** Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.



ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ବିଭାଗ
Department of Health & Family Welfare
(Government of Odisha)

0671-2414080
email: scbsuperintendent@gmail.com
Cutlack, Odisha-753007



8

Patient Name: Mahira Anjum

D/O Munsaf Ali

Age/Sex 4Mth /Female

Date & Time: 2-January-2023 7:31:33

Department: Paediatrics (Paediatrics Unit)

Appointment Date: 02-Jan-2023

WT = 6.5 kg

8328817262

Vitals:

HT:.....(Cms)

WT:.....(Kg)

Pulse:...../min

BP:.....mm/Hg

Temp:.....°F

RR:...../min.

SPO2:.....%

Investigations:

CBC/LFT/ANFI

Clotted Sugar(R/F/PP)

HB/TLC/DLC

ESR/Bond Urea

S.Creatinine/S Uric Acid

Serum Bilirubin

SGOPT/SGPT

Lipid Profile

Blood Group

T3,T4,TSH

Urine R/M

X-Ray Chest PA View

USG Abdomen

TMT/Echo,ECG

Others

Chief Complaints:

n/o Asthma in family

Multigrader wheeze

Examination:

B. nebulisation Levolin (0.31)

(*)

(*)

(*)

• saline nasal drop

• 12 hazy

• S. cefprozine

u2 (2.5ml) OD BF x10dy

• Omna corti drop

(12dy) 0.6ml 12ly BF x5

• S. AmoxyClav 228-S

8.5 ml 12ly BF x5

Signature & Full Name of the Doctor

Diagnosis/
Diagnosis(Prev):

Past History:

Hyper Tension: (Y/N)

Diabetes: (Y/N)

COPD: (Y/N)

Oncology: (Y/N)

CAD: (Y/N)

Tuberculosis: (Y/N)

Thyroid: (Y/N)

Surgery: (Y/N)

Other: (Y/N)

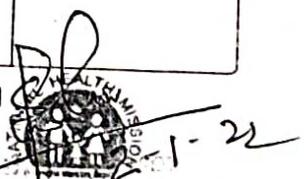
Cocanut oil

manu

L/L
ପ୍ରସ୍ତୁତ



ପରକାରୀ ତାଙ୍କର ଖାଦା ରେ ମିଳୁଥିବା ସମସ୍ତ ଔଷଧ ଗୁଣାପୂର୍ବକମାନ ପରୀକ୍ଷା ପରେ ବର୍ଣ୍ଣନା କରାଯାଏ। ଏହାକୁ ବ୍ୟବହାର କରନ୍ତୁ।



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Department of Paediatrics
S.C.B Medical College Hospital
CUTTACK

Super speciality & Cardiology OPD closed on Sundays



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Department of Health & Family Welfare
(Government of Odisha)

email : scbsuperintendent@gmail.com

Cuttack, Odisha-753007



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SCB Medical College & Hospital, Cuttack

CR No.: 211022207556327

OPD CARD

www.scbmch.in

Patient Name: Arham Ali

Age/Sex: 5 Yr /M

S/O: Munsaf Ali

Date & Time: 7-November-2022 6:26:42

Department: Paediatrics(Paediatrics Unit)

Appointment Date: 07-Nov-2022

cut 20kg

Vitals: HL.....(Cms) Wt:.....(Kg) Pulse:...../min BP:.....mm/Hg Temp:.....°F RR:...../min. SPO2:.....% Investigations: CBC/LFT/KFT Blood Sugar(R/F/PP) HB/TLC/DLC ESR/Blood Urea S.Creatinine/S Uric Acid Serum Bilirubin SGOPT/SGPT Lipid Profile Blood Group T3,T4,TSH Urine R/M X-Ray Chest PA View USG Abdomen TMT/Echo,ECG Others	Chief Complaints: Allergic Rhinitis + Night cough + Daytime symp t. Limitation of activity +/- Dust + Poorly Controlled asthma	Diagnosis/ Diagnosis(Prov): Past History: Hyper Tension: (Y/N) Diabetes: (Y/N) COPD: (Y/N) Oncology: (Y/N) CAD: (Y/N) Tuberculosis: (Y/N) Thyroid: (Y/N) Surgery: (Y/N) Other: (Y/N)	
	Examination: Use mask Foracort MDI 1 puff 12 hourly → 3mon.	S. Montelukast 4mg + Levocetizine 2-5mg 5ml OD → 2mon.	
	Adv Spirometry Flu vaccine Saline nasal drop 0.1 2ly.	Momentasone nasal 1puff once daily Spray X 3m.	
	4wks		

Signature & Full Name of the Doctor



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Assistant Professor
Department of Pediatrics
S.C.B Medical College Hospital
CUTTACK

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- Doctor Consultation time (OP Timing) 9:00am to 5:00pm

Super speciality & Cardiology OPD closed on Sundays

Dr. Manoranjan Dash

MBBS, MD (Pulmonary Medicine), (DCCM)
Associate Professor
P.G. Dept. of Pulm, Medicine (Chest & TB)
SCB Medical College & Hospital, Cuttack



Consultant Pulmonologist, Bronchoscopist & Intensivist (ICU)
Life Member : NCCP, ICS, ISCCM, IAB, IMA, OCS
Mob : 0-9937356880
Email : dmrddash@rediffmail.com

Date : 17/2/23

Name : Arjun B. B. Age : 50M Sex : M
Weight : 75 kg Pulse : 106/m BP : 120/80 mmHg SPO₂ : 97% R.R. : 18

Asca con Br Asthma

CO - Asthma (Lower)

Chest - 12c US c' XScdy

Ronchi

Up

of Bronchial (Low) con

AC

con con 12c Trachea

② Trachea con

con con con Trachea

USG. Asthma

③ Monk - CC - con

Make discount
piece

④ Morefo (Low) - con XScy

⑤ Dr. Ultracet 12c XScy

⑥ con Sarpot 12c - con XScy

Trachea

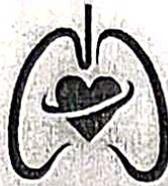
CC

CONSULTATION ON APPOINTMENT :

Clinic : SS Medicare, Kitab Mahal Side, Revenshaw College Square, Cuttack
For Appointment Call : 9853658281, 8895169286 (Kedar)

Dr. Manoranjan Dash

MBBS, MD (Pulmonary Medicine), IDCCM
 Associate Professor
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 SCB Medical College & Hospital, Cuttack



Consultant Pulmonologist, Bronchoscopist & Intensivist (ICU)
 Life Member : NCCP, ICS, ISCCM, IAB, IMA, OCS
 Mob. : 0-9937356880
 E-mail : drmrddash@rediffmail.com

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Date: 25/5/22

Name: Anjan Biba
 Age 54y Sex F
 Weight 60kg Pulse: 104/min BP: 110/64 mmHg SPO2: 98% R.R. 18

Temp 97°
 Wt 60kg
 Ht 165cm
 HR 104/min
 RR 18/min
 SpO2 98%

Respirer cap Br. Beta 1H
 Delta
 90 - weeks
 Chest Inc VBC =
 100
 Wt 165
 Wt 165 - 16.5
 Up
 Defect flow
 ce cap cap x 5g
 Then one cap once in a week 2g
 2) Con + Bio 1/2 week on xca
 3) Beclometh (400) 2 caps
 ce cap 12g 2 caps
 4) 2000 cap ce cap ce 2 caps
 5) 2g Moxovent (400) 1g
 6) 2g Mont-LC on
 7) 2g Lepevent - cv (100) on

CONSULTATION ON APPOINTMENT:

Clinic : S.S. Medicare, Kitab Mahal Side, Ravenshaw College Square, Cuttack
 For Appointment Call : 9853658281, 8895169286 (Kedar)

Dr. Prasant Kr. Sahoo

MD; DM (Card., Mumbai); FRCP (Lond & Glasg.)
 FACC; FSCAI (USA); FESC; FAPSIC; FICC; FCSI
 Senior Consultant - Cardiologist
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Dr. Sharmila Moharana

MBBS; F. Card; F. Echo. CCCS; CCMH (PHFI)
 Sr. Medical Officer (Cardiology)
 Regn. No: 14946/OR/2003
 M : +91 8018618170

Name: ^{SK} SABIR MOHAMMAD' Age: 28yo Sex: M/F UHID: _____
 Refd. by: _____ Date: 7.5.2022.

CARD, BICUSPID AORTIC VALVE
 E SEVERE AC.

Plan - High risk AVR

CTVS Consultation
Dr R. N Mohapatra

Review / Follow Up after days

- * FOR PRIOR APPOINTMENT(S)
 CALL: 0674-666 0381
 Time: 9AM-5PM (Monday to Saturday)
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T. Catterfield
 Advocate



CR No: 211021900658579

OPD CARD



Patient Name: SK SABIR
SK ALI MAHAMMED
Address: Biliteruan Cuttack, Odisha India Mobile: 9853648930
Category: General
Department: Cardiology-Cardio Unit 2

Age/Sex: 34 years 8 mons 4 days/M
Date & Time: 05-Apr-2022 11:08
Queue No.: 17
Patient Type: Non MLC
Room No.: Room 1, 12

Vitals:
Ht :.....(Cms)
Wt :.....(Kg)
Pulse...../min
BP :.....mm/Hg
Temp.....*F
RR :...../min.
SpO2.....%
Investigations:
CBC/LFT/KFT
Blood
Sugar(R/F/PP)
HB/TLC/DLC
S.Creatinine/S
Uric
Acid
Serum
Bilirubin
SGOPT/SGPT
Lipid
Profile
Blood
Group
T3,T4,TSH
Urine
K/M
X-Ray
Chest
PA
View
ESG
Abdomen
I/MT/Echo,ECC
Others

Chief Complaints:

Examination:

Kidney: DCM
mild MR
severe LV dysfunction (EG 34/1)

no CP, nausea x 2-3 dly

No CP, fever, cough, SOB, syncope, palp

O/E - HR - 88/min Regu

BP - 112/80 mmHg

Wt - 55.5 kg

Chest - clear R/L

Inv (11/3/22)
B.W/Ov 37/3
Treatment(Rx):

Tab: carvedilol 3.125 mg 1 tab BID
Tab: Torsemide 10 mg 1 tab BID
Tab: Rosuvastatin 20 mg 1 tab OD BSB
+ampicillin (capsule) x 20 dly
fluid restriction / SLR diet

Diagnosis/
Diagnosis(Prov):

Past
History:

Hypertension (Y/N)
Diabetes: (Y/N)
COPD: (Y/N)
Oncology: (Y/N)
CAD: (Y/N)
Tuberculosis: (Y/N)
Thyroid: (Y/N)
Surgery: (Y/N)
Other: (Y/N)

Signature & Full Name of the Doctor

ସରକାରୀ ଡାକ୍ତର ଖାନା ରେ ମିଳୁଥିବା ଘମସୁ ଔଷଧ ଗୁଣାଗୁଣମାନ ପରାମର୍ଶ
ପରେ ବ୍ୟବହାର କରାଯାଏ। ଏହାକୁ ବ୍ୟବହାର କରନ୍ତୁ।



PG DEPARTMENT OF MEDICINE
SCB MEDICAL COLLEGE AND HOSPITAL CUTTACK
DISCHARGE CERTIFICATE

MOPD VI UNIT
SATURDAY



ASSOC. PROF. DR. MANORANJAN BEHERA
ASST. PROF. DR. SUNITA SETHY
ASST. PROF. DR. DIPTI RANJAN DARJEE
Dr. Asit K. Mallick
Dr. Anadhana Sahoo

NAME: Kedar Jena AGE: 50 SEX: M BED NO: 4026

REGD NO: S.6.4-C/24.01.2021 DOA: 24.01.2021 DOD: 26.01.2021

CLINICAL SUMMARY: Sudden onset weakness in right side of body for 1 day

DIAGNOSIS: CVA (infarct) + bronchial asthma

TREATMENT GIVEN: Syp glycerol 30ml in 1/2 glass of water TDS
Tab pantoprazole 40 tabs x 10 days
Tab celecoxib 200ms 1 tab BDX 5 days
Tab clopidogrel 75 1 tab x to continue
Thrombophages R

CONDITION ON DISCHARGE: On a par

ADVICE: Discharge to attend neurology OPD Tuesday / Thursday

- Adv ✓ Syp glycerol 30ml in 1/2 glass of water TDS
- ✓ Tab pantoprazole 40 tabs x 10 days
- ✓ Tab celecoxib 200ms 1 tab BDX 5 days
- ✓ Tab clopidogrel 75 1 tab x to continue
- ✓ Tab atorvastatin 20ms 1 tab x to continue
- ✓ Tab acebrophylline 100ms 1 cap BDX 10 days
- ✓ Tab levocetirizine + montelukast 1 tab BDX 1 month
- Regular BP Check up.

ATTEND MOPD AFTER 15 DAYS ON SATURDAY FOR FOLLOW-UP

DATE: 26.1.2021

Prepared by
[Signature]
26/1/21

[Signature]
1-2021
SIGNATURE & STAMP
(Faculties/SR)



NAME OF THE PATIENT: **KEDARJENA**
No/-

AGE/SEX: 50Yrs/M.
Date: 1 March 2021

ECHOCARDIOGRAM

M-MODE MEASUREMENTS:

<u>Mitral Valve:</u>	<u>AO / LA</u>	
Leaflets : Normal.	<u>Aortic Root Diameter</u>	: 29 mm.
EPSS: 6 mm.	<u>Cusp Separation</u>	: 17 mm.
<u>Left ventricle:</u>	<u>Left Atrium</u>	: 32 mm.
Internal Dimension Diastole : 48mm	<u>IVS Thickness Diastole</u>	: 10mm.
Internal Dimension Systole : 27mm	<u>Post LV Wall Thickness Diastole</u>	: 10 mm.
Ejection Fraction : 73 %		
Fractional shortening : 42 %		
<u>Right ventricle:</u> Dimension Diastole: 18.6 mm	Right ventricle Dimension Diastole	22mm
Pulmonary valve: Normal.		

2-D EVALUATION:

Normal dimensions of cardiac chamber
 Good contractility.
 Normal wall thickness.
 No regional wall motion abnormality (RWMA)
 Valves are normal.
 IAS and IVS are intact.
 No clot / vegetation/, pericardial effusion.

DOPPLER & COLOUR FLOW IMAGING:

Mitral Flow : E velocity 0.5m/s. A velocity 0.8m/s E<A.
 No MR.
 Aortic Flow : Peak systolic velocity 1.2m/s.
 Gradient 6mmHg. No AR.
 Pulmonary Flow : Peak systolic velocity 1.0m/s.
 Gradient 4mmHg. No PR.
 Tricuspid Flow : Peak systolic velocity 2.17m/s, Gradient 18.98mmHg.
 No TR.

IMPRESSION

GRADE-I DIASTOLIC DYSFUNCTION
NORMAL LV SYSTOLIC FUNCTION
NO RWMA

Dr. R. K. Mohanty
 (Dr. R. K. MOHANTY)
 CONSULTANT CARDIOLOGIST



Name..... Kedan Jena..... Sex Male Age 55 Date 1/12/2020

DM II^o, B-Adma (+)
 11th line 2nd line w/o sensation of numbness
 and tingling sensation of R arm and
 weakness in R leg.

BP $\frac{120}{80}$ mmHg
 HR - 90/min
 CRT (+) 2 sec
 no m.

M of C

Rx

Tab. TELMA - 10mg
 1 tab po qd

Cap. METANEURIN - 0.5
 1 cap po qd x 2 months

Review & report.

Low salt diet.

Tab. ROSUVAS 10mg
 1 tab po qd

[Signature]

ftv
 CT Scan Brain ✓
 S. urea / S. creatinine
 CBC
 S. Na⁺ K⁺ IRR ✓

Wt 75 kg - 8.3
 PFT - 3.87
 Hb - 15.8
 ESR 60 L32 M1
 RFT - 24.0
 S. urea / Cr - 24 / 0.9
 Na⁺ K⁺ - 138 / 4.1

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PAKISTAN JOURNAL OF
MEDICAL SCIENCES
Bi-Monthly

[Pak J Med Sci](#). 2013 Nov-Dec; 29(6): 1444–1446.

PMCID: PMC3905363

doi: [10.12669/pjms.296.3787](https://doi.org/10.12669/pjms.296.3787)

PMID: [24550971](https://pubmed.ncbi.nlm.nih.gov/24550971/)

Potential implications of mine dusts on human health: A case study of Mukula Mine, Limpopo Province, South Africa

[Abuh Momoh](#),¹ [Sphiwe E. Mhlongo](#),² [Olukoga Abiodun](#),³ [Confidence Muzerengi](#),⁴ and [Matamela Mudanalwo](#)⁵

Abstract

Objective: The purpose of this study was to estimate the levels of Suspended Particulate Matter (SPM) in ambient air within Mukula mine and the potential risks to mineworkers and inhabitants of the adjoining Mukula community's health.

Methods : An SPM was used to measure the levels of particulate matter (PM₁₀) in and around the mining site. One-way Analysis of Variance (ANOVA) was used to determine significance level of PM₁₀ in ambient air.

Results: Suspended particulate matter in the air ranged from 60.25 to 1820.45 µg/m³. The lowest value of SPM was more than four times the required World Health Organisation's allowable level in ambient air, which the mine workers and locals would be inhaling.

Conclusion: Continuous inhalation of mine dusts by mine workers and locals could result in pulmonary fibrosis, silicosis and lung cancer. The findings from this study support the need to have in place the necessary control measures that will drastically reduce SPM in the air. Such measure includes wet drilling and blasting, sprinkling of water on the mine roads and planting of vegetation around the mines and neighbouring communities.

Key Words: Aggregates, Ambient air, Mine dusts, Suspended particulate matter, Health

INTRODUCTION

Mine dusts are products of mining activities which are formed when rocks are broken by impact, crushing or grinding. The compositions of these dusts are determined by its source region and closely reflect the composition of soil cover.¹ These dusts are made of minerals like



feldspars, quartz, carbonates, sulphates and phosphates. The dusts are released into different components of the environment (air, water and land) and they could adversely affect the health of mine workers and others living within the vicinity of mining companies.

The total surface area of dust particles are so large that they are more physically, chemically and biologically active than the parent material. Mine dusts are classified based on the size distributions of the particulates and in terms of physiological effects. The physiological effects of mine dusts are further divided into five categories namely; toxic dusts, carcinogenic (cancer causing) dusts; fibrogenic (silicosis causing) dusts; explosive dusts and nuisance dusts.² Particles with the size of 500 - 1000 μm get dislodged from the rock surface, but only those with an aerodynamic diameter of less than 7.5 μm will get suspended in the atmosphere.³ Silicosis is a disease that affects the tissue and space around the air sacs of the lungs due to inhalation of mixed dusts containing silicates.⁴ It occurs in three ways, chronic silicosis which is progressive lung disease characterized by development of scar in response to inhalation of silicates bearing dusts; acute silicosis is the destruction of airways in order for the lungs to become heavy and rigid as air spaces are filled with granular silicate particles and accelerated silicosis which is exposure to silica dusts of almost pure quartz in which the victims show no clinical abnormalities until the condition becomes acute resulting in a decrease of lung function.⁵ According to Jaggard⁴ lead bearing mine dusts with a diameter of < 5 μm have a higher potential of being ingested deeper into human lung causing possible tissue damage and toxic effects.

The aim of this present study was to measure the concentration of suspended particulate matter in ambient air and to highlight the potential risks of these dusts to the adjoining Mukula community's health.

METHODS

Mukula mine was established by Mukula community members in 2000 to produce aggregates for sales to construction companies. Measurements of dusts in ambient air (PM₁₀) were conducted with the aid of a suspended particulate matter (SPM) metre. The readings were taken as composite at four different points so as to arrive at a mean value for specific sampling location. The measurements were carried out at the drilling site at 0m, 20m, 50m, and 100m away, respectively. Data were analysed using a one-way analysis of variance (ANOVA) using a Tukey-Kramer Multiple comparison test.

RESULTS

Suspended particulate matter in the air ranges from 60.25 – 1820.45 $\mu\text{g}/\text{m}^3$ (Table-1). Highest value of SPM was attained at the drilling point, while lowest value was attained at 100m away from the mine. There was a significant difference ($p = 0.01112$), in the measurements as one moves away from the drilling point towards where the local inhabitants live.

Table-I

Dust measurements at drilling points ($\mu\text{g}/\text{m}^3$).

<i>Points</i>	<i>0 m</i>	<i>20m</i>	<i>50m</i>	<i>100m</i>
SP 1	1240.01	760.62	215.23	200.45
SP2	630.03	500.41	219.01	200.78
SP 3	630.53	1660.31	230.24	60.25
SP 4	1820.45	890.82	240.36	400.21
Mean	1080.25	953.04	226.21	215.42
SD	571.07	498.07	11.38	139.84

SP = Sampling point, SD = Standard deviation

The least measured SPM was four times greater than the prescribed value for World Health Organization Air Quality Standards.

DISCUSSION

Results of the study showed very high concentrations of dusts at the point where whole rock was drilled before crushing them into several sizes of aggregates. World Health Organization considers $55 \mu\text{g}/\text{m}^3$ as acceptable value and above $90 \mu\text{g}/\text{m}^3$ as unacceptable value of dust in ambient air.⁶ Researches have shown that suspended particulate matter is the major causes of asthma, lung cancer, cardiovascular diseases and premature deaths in humans.^{1,6,7} The concentrations of SPM at drilling site were more than these prescribed values by WHO. Aggregates that were produced in this mine releases significant amount of PM₁₀ into the atmosphere. This finding is consistent with studies in United States of America (USA) and Nigeria.^{7,8}

The implications of these dusts on the health of miners depends on the exposure level, the duration of exposure, the frequency of exposure, the chemical and mineralogical composition of inhaled particle.³ Miners were dressed in torn clothes without wearing any personnel protection equipment such as, hard hat, cover all, nose and ear muffs. Researches had shown that when miners are exposed to silica dust over certain period of years. There is always the tendency that these miners would develop silicosis, lung cancer and tuberculosis.⁹

Miners and people living in the Ib valley coal field of India were inhaling fine dust particles of up to $5\mu\text{m}$ in size and as a result asthma and bronchitis have become a major problem of this community.¹⁰ In Talcher region of India, high levels of mine dusts from coal fields and other associated minerals were responsible for the occurrence of cancer, tuberculosis, bronchitis and skin diseases.¹¹ Mineworkers and inhabitants of Mukula community could be exposed to incidence of these occupational diseases because they live close to this mine that is emitting PM₁₀ into the atmosphere in excess of allowable WHO limits.

CONCLUSION

Mine dusts in ambient air are generally above allowable limits. Prolong exposure to these dusts by miners could lead to respiratory diseases (asthma, silicosis and tuberculosis) and skin disorders. The concentrations of these dusts present great risks to the health of miners and inhabitants of Mukula community around the mine. It is necessary to have control measures such as wet drilling, sprinkling of water on mine roads and planting of vegetation around mine to trap mine dusts. Further studies are required to determine the trace element constituents of mine dusts emission from the Mukula mine.

Author's contribution:

All authors participated in the design and interpretation of the studies. AM, ESM, OA, CM and MM participated in the fieldwork, AM wrote the manuscript, OA analysed the data and reviewed the manuscript.

References

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t.c.



Effect of Different Mining Dust on the Vegetation of District Balaghat, M.P - A Critical Review

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³Principal Scientist, EMG, CSIR- Central Institute of Mining and Fuel Research (CIMFR), Dhanbad, Jharkhand, India

Abstract: *Industrialization had increased requirement of more energy with mining for more minerals resultant pollution. Soil pollution due to different mining dust has become problem in district Balaghat, M.P beside that dust deposition on the surface of vegetation affects photosynthesis and growth of common plants nearby the mining areas. This review articles describes briefly the various mining sites in Balaghat district of Madhya Pradesh, India and dust chemical characteristics which had many effects on vegetation and soil. The physical and chemical characteristics of a range of mining dust types are explained and its effects on photosynthesis, respiration and transpiration. Plants growing on this atmosphere show a reduction in growth performance and yield. Visible injury symptoms and decreased in productivity on vegetation is well noticed. Most of the plant community structure is altered. However, there have been very few detailed studies on natural and semi-natural systems and some dust types are also much understudied. Recommendations for future research are made in order to overcome this knowledge gap.*

Keywords: Dust, Growth performance of Vegetation, Mining in district Balaghat, M.P, Soil pollution.

1. Introduction

This paper briefly explains the effects of mining dust pollution on plant communities. Dusts consist of solid matter in a minute and fine state of subdivision so that the particles are small enough to be raised and carried by wind. They may originate from many sources. A large number of mines and mining industrial process can produce particulate emission (Fennelly, 1975). The main processes that regularly cause problems, however, are those concerned with mineral extraction. This range from the quarrying itself to the various processing operations e.g. copper, manganese, limestone, marble and aluminum ore processing with cement manufacturing. Mining dust suppression in this operation is more difficult and dust levels can be very high. Mineral extraction is increasing in many countries in order to meet increased construction demand (Harris, 1975, Stanton 1989). Industrialization, urbanization, economic growth and associated increase in metal and minerals demands have resulted in a profound deterioration of air quality in developing countries like India.

Although minerals and heavy metals are naturally present in the soil, geologic and anthropogenic activities increase the concentration of these elements to amounts that are harmful to plants. Some of these activities include mining smelting of metals, processing of minerals also. Growth reduction as a result of changes in physiological and biochemical processes in plants growing on mining polluted soils has been recorded (Chatterjee & Chatterjee, 2000).

This paper shows a comprehensive review of literatures available on the effect of mining dust on plants with their communities and soil. Initially the characteristics of various dust types are described, highlighting those factors that are important in determining the likely impact its deposition may have. The effect of mining dust is considered according to vegetation type followed by a discussion of the effects of

mining dust on plant species, crop species and on a range of natural and semi-natural vegetation types.

Further, the objective of this study is to know the influence of mining activity on the concentration of dust in air, soil and vegetation surrounding mining sites at Balaghat district, Madhya Pradesh, India.

2. Detail of sites

2.1 About different mining sites in district Balaghat, M.P.

In Madhya Pradesh, Balaghat district has a huge mineral deposits and also prosperous with forest. Balaghat is located in the southern part of Jabalpur division. It occupies the south eastern portion of the satpura range and the upper vally of the Wainganga River. The district extends from 21°19' to 22°24' north latitude and 79°31' to 81°3' east longitude. The total area of the district is 9,245km² (Figure.2.1 and 2.2).

About 80% of the manganese production in India comes from Balaghat district by MOIL, and copper deposit at Malanjkhanda, Balaghat is regarded 70% as the largest in the country. In fact it is largest open-cast mining in Asia. Bauxite, Kainite, Marble, Dolomite, Clay and Limestone are the other main minerals of the Balaghat district (Table.2.1).

The lush green forest of Balaghat district and Kannah National park is also important as mining of different minerals present in and around.

Table 2.1: Mineral Resources of District Balaghat, M.P, India

S. N.	Minerals	Village	Tehsil	Uses
01.	Copper ore (Chalcopyrite, Pyrite, Cuprite)	Malanjkhanda	Baihar	Used in wire, plates etc.,
02.	Manganese ore (Pyrolusite, Bryonite, Magnite)	Ukwa, Tirodi, Hirapur, Bharweli, Manegaon, Miragpur	Baihar Katangi Balaghat	Used in steel and alloys.
03.	Cement Raw	Duglai, Hatri, Kandai, Deodongla, Jangla, Piprahi	Baihar	Used for Cement
04.	Marble Dolomite	Bhagatpur Iatri, Sitapchoro, Dulhapur	Balaghat Baihar Katangi	Used in Tiles
05.	Bauxite (Alumina)	Mardi Dadar, Toursi Dadar, Garhi Dadar	Baihar	used in Refractory
06.	Limestone	Tirodi	Katangi	Used in Cement.

3. Source of Contamination

There are different sources of dust in the environment such as (1) Natural source (2) Agriculture source (3) Industrial Source (4) Atmospheric source (5) Mining Source etc. Dust can be emitted into the environment by both natural and anthropogenic activities. The major causes of emission are the anthropogenic sources specifically mining operations (Nriagu 1989). In some cases, even long after the mining activities have ceased the emitted metals continue to persist in the environment. Peplow (1999) reported that hard rock mine operate from 5-15 years until the minerals are depleted, but metal contamination that occurs as a consequence of hard rock mining persist for hundred of year after the cessation of mining operations. Heavy metal and minerals are emitted both in elemental and in compound (organic and inorganic) forms. Anthropogenic sources of emission are the various industrial point sources including former and present mining site.

4. Effect of Mining Dust on Plants

Plants are often sensitive both to deficiency and to the excess availability of some heavy metal ion as essential micronutrient, while the same at higher concentrations and ions are strongly poisonous to the metabolic activities. Research shown significant adverse effects of toxic mining dust on plants (Reeves and Baker 2000, Fernandes and Henriques 1991) and agricultural soil has become a critical environmental concern due to their potential adverse ecological effects. Further, such toxic elements are considered as soil pollutants and their acute and chronic toxic effect on plants grown in such soils.

4.1 Effect of Copper Dust on Plants

Copper (Cu) is considered as a micronutrient for plants (Thomas et al., 1998) and plays important role in CO₂ assimilation and ATP synthesis. Cu is also an essential component of various proteins like plastocyanin of photosynthetic system and cytochrome oxidase of respiratory electron transport chain (Demirevska-kepova et al., 2004). But enhanced industrial and mining activities have contributed to the increasing occurrence of Cu in ecosystems. Cu is also added to soils from different human activities including mining and smelting of Cu-containing ores. Mining activities generate a large amount of waste rocks and tailings, which get deposited at the surface. Excess of Cu in soil plays a cytotoxic role, induces stress and ROS (Stadtman and Oliver 1991). Oxidative stress causes disturbance of metabolic pathways and damage to macromolecules (Hegedus et al., 2001). Copper dust had adverse effect on photosynthesis pigmentations of vegetation around the mining site (Pichhode & Nikhil, 2015 a) with soil and vegetation cumulatively on certain vegetation of district Balaghat, M.P (Pichhode & Nikhil, 2015 b). Excess application of pesticides had resultant in the rise of Cu in soil (Nikki, 2000).



Figure 2.1: Location Map of district Balaghat, M.P, India

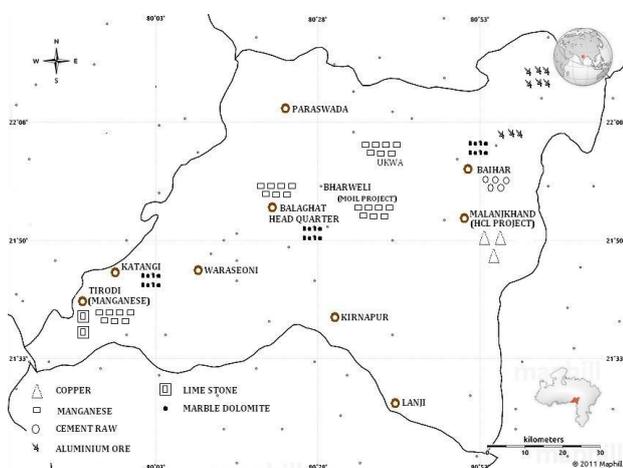


Figure 2.2: Geographical location of different mining site in district Balaghat, M.P, India

4.2 Effect of Manganese Dust on Plants

Accumulation of excessive manganese (Mn) in leaves causes a reduction of photosynthetic rate (Kitao et al., 1997). Mn is readily transported from the root to shoot through phloem to other organs after reaching the leaves (Loneragan 1988). Necrotic brown spotting on leaves, petioles and stems is a common symptom of Mn toxicity (Wu 1994). This spotting starts on the lower leaves and progresses with time toward the upper leaves (Horiguchi 1988). With time, the speckles can increase in both number and size resulting in necrotic lesions, leaf browning and death (Elamin and Wilcox 1986). General leaf bronzing and shortening of internodes has been documented in *Cucumis sativus* (cucumber) (Crawford et al., 1989, a and b). Another common symptom is known as "crinkle-leaf", and it occurs in the youngest leaf, stem and petiole tissue. It is also associated with chlorosis and browning of the tissue (Wu 1994; Bachman and Miller 1995). Roots exhibiting Mn toxicity are commonly brown in colour (Le Bot et al., 1990; Foy et al., 1995) and sometimes crack (Foy et al., 1995). Chlorosis in younger leaves by Mn toxicity is thought to be caused through Mn-induced Fe deficiency (Horst 1988). Excess Mn is reported to inhibit synthesis of chlorophyll by blocking a Fe-concerning process (Clarimont et al., 1986). Manganese toxicity in some species starts with chlorosis of older leaves moving toward the younger leaves with time (Bachman and Miller 1995). This symptom starts at the leaf margins progressing to the interveinal areas and if the toxicity is acute, the symptom progresses to marginal and interveinal necrosis of leaves (Bachman and Miller 1995).

4.3 Effect of Iron on Plants

Iron as an essential element for all plants has many important biological roles in the processes as diverse as photosynthesis, chloroplast development and chlorophyll biosynthesis. Iron is a major constituents of the cell redox system such as heme proteins including cytochromes, catalase, peroxidase and leghemoglobin and iron sulfur proteins including ferredoxin, aconitase and superoxide dismutase (SOD) (Marschner 1995).

4.4 Effect of Cement Dust on Plants

The cement industries also plays a vital role in the imbalances of the environment and produces air pollution hazards (Stern 1976). These dust particulates are causing large scale deforestation destruction of biota (Panda, et al., 1996) and other natural resources. Among these deposition of cement kiln dust in large quantities around cement factories causes changes in soil's physical and chemical properties (Asubiojo, et al., 1991; Saralabai 1993). The effect of such deposition affects the growth and biochemical characteristics of field crops has also been widely studied (Prasad and Inamadar 1990; Prasad et al., 1991). According to Farmer (1990) cement industrial region are confronted with the problems of alkalization due to high deposition of alkaline cement dust and their ash in the pollution complex. In addition, the growth of quarrying and open-cast mining suggests the deposition on vegetation may be increasing.

4.5 Effect of Bauxite Dust on Plants

Bauxite mining is one such major open cast mining activity which has significant negative impact on the local environment. The major threats of this activity are dust pollution, vegetation loss, forest fragmentation and biodiversity loss, negative impact on water resources, generation of wastelands and social impact. The study revealed that the legal and illegal mining activity has initiated serious environmental degradation in the region. Though mining initially provided job opportunities for limited inhabitants and generated revenue to Government, it would last only for a short period. However, the damage caused to the local ecology as a result of the changed land use is permanent (Rohan and Samant, 2012).

4.6 Effect of Marble Dust on Plants

The paper describes the effect of marble dust on plants. Trees species growing were selected and various morphological characteristics were studied such as leaf area dry weight ratio (LADWR), Dust retaining capacity (DRC) and Chlorophyll content. In the study the effects of marble dust on selected tree species was observed. LADWR was recorded maximum 217.90 cm² g⁻¹ dry wt. in *Polyalthia longifolia* and minimum 98.74 cm² g⁻¹ dry wt. in *Ficus religiosa* in Nindar whereas The DRC was observed maximum 178.51 mg cm⁻² in *Azadirachta indica* as well as minimum recorded 66.41 mg cm⁻² in *Thevetia peruviana*. However the Total Chlorophyll Content was also determined and it was found maximum in *Bougainvillea* i.e. 2.949 mg g⁻¹(fresh wt.) whereas minimum 0.784 mg g⁻¹ (fresh wt.) in *Ficus religiosa* (Saini, et al., 2011).

5. Conclusion and Future Aspects

The physiological response of plants reveals many different direct routes of action through which dust can affect plants. Mining dust may also exacerbate secondary stresses, such as drought, insects and pathogens, or allow penetration of toxic metals or phytotoxic gaseous pollutants. Effect of mining dust on natural communities may alter the competitive balance between species in a community. These changes in the vegetation may also affect animal communities, from vertebrate's grazers to soil invertebrates. This may, for example, alter cycles of decomposition. Response of individual species may be positive or negative depending on the particular situation, and only detailed studies may reveal the main reason behind any observed changes. There have, unfortunately, been only a limited number of studies at the community level.

It is evident from this review of the literature that there are many gaps in our knowledge of the effects of mining dust. Until research into these areas is undertaken, the ability of those with responsibility for plant and crop protection, or preventing the deterioration of natural and semi-natural habitats, to address developments that may threaten sites will be inadequate. It is important therefore, that current trends in dust emissions are identified as well as the vegetation types that are likely to be affected by such emission.

Thus, it is evident from the several research reports that judicious use and presence of mining dust have toxic effect on plants, animals and other living organisms and affects the same after certain limits. Therefore, it is well needed to intensify the research program for better understanding of effect of mining dust on plants and allied areas to maintain the ecological harmony.

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Author Profile



Jyotish Katare, M.Sc., Department of Biotechnology, Sardar Patel College of Technology, Balaghat affiliated to Rani Durgavati Vishwavidyalaya, Jabalpur, M.P. done his project work at EMG, CSIR-CIMFR, Dhanbad, Jharkhand, India in the year 2013 and publishing his experimental finding which is very significant and important work. This review paper will helps in understanding the effects of copper and other mining present at district Balaghat, M.P through dust showing effects on plants and soil. He further grown plants on the copper overburden dump top material as growing media with or without soil and Cowdung manure in different combination shown significant cumulative effects on the plant growth which has already been published.



Mohnish Pichhode, M.Sc. in Biotechnology, Department of Biotechnology, Sardar Patel College of Technology, Balaghat affiliated to Rani Durgavati Vishwavidyalaya, Jabalpur, M.P done his project work at EMG, CSIR-CIMFR, Dhanbad, Jharkhand, India in the year 2013 and published very significant and important review paper as well as an experimental work in the second paper which had indeed helped in understanding the effects of copper mining in nearby vegetation and soil within the district Balaghat, M.P.



Dr. Kumar Nikhil, Ph.D in Env.Sc. & Engg., Principal Scientist at Environmental Management Group, CSIR-Central Institute of Mining and Fuel Research (CIMFR), Barwa Road, Dhanbad - 826 015, Jharkhand, India has gained more than 30 years of research experience involved in more than 60 projects in different capacity. More than 135 scientific publications on his name. Guided more than 65 students of B.Sc, M.Sc, B.Tech & M.Tech, Ph.D students in their project and research works.

t.c.
Chandrabh

**Report of the CPCB In-house Committee on
Methodology for Assessing Environmental
Compensation and Action Plan to Utilize the Fund**



CENTRAL POLLUTION CONTROL BOARD
"Parivesh Bhawan", East Arjun Nagar,
Delhi-110032

Chapter-I: Environment Compensation to be levied on Industrial Units

1.1 Background

The Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors. directed Central Pollution Control Board (CPCB) that:

“The CPCB may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs. CPCB may also assess and recover compensation for damage to the environment and said fund may be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the CPCB within three months” (Annexure-I).

1.2 Constitution of the Committee

In this context, Chairman, CPCB constituted a Committee under the Chairmanship of Shri A. Sudhakar, I/c WQM-I with Shri A. K. Vidyarthi, I/c WQM-II, Shri P. K. Gupta, I/c IPC-VI, Shri Nazimuddin I/c IPC-II and Dr. S. K. Paliwal, Scientist 'D' as members. The Committee was asked to deliberate on this issue and come up with a draft formulation before 15.9.2018.

1.3 Methodology for Assessing Environmental Compensation

The Committee discussed the issue on 4.9.2018, 13.9.2018, 17.9.2018 and 09.10.2018. A meeting was also held with Senior Officers of CPCB Head Office and Regional Directorates through video conferencing on 28.09.2018 to discuss the draft report and to seek comments/feedbacks. The comments/feedbacks received and deliberations of the Committee on the same are given in **Annexure-II**.

As per the Hon'ble NGT suggestion, CPCB has invited comments of 3 expert institution, namely, Centre for Science and Environment (CSE), Institute of Economic Growth (IEG) and The Energy Research Institute (TERI). A meeting to incorporate the comments of the expert institutions and to finalize the report, was held on 27/03/2019. The CPCB in-house committee on Environmental Compensation has deliberated on the comments and finalized the report accordingly. The Committee's deliberations are attached as **Annexure-III**.

It was deliberated for developing a formula for imposing environmental compensation on industrial units for violation of directions issued by regulatory bodies and this is the first attempt made. The committee discussed that environmental compensation should be based on "Polluter Pay Principle". The Committee decided to list the instances for taking cognizance of cases fit for violation and levy environmental compensation.

Cases considered for levying Environmental Compensation (EC):

- a) Discharges in violation of consent conditions, mainly prescribed standards / consent limits.
- b) Not complying with the directions issued, such as direction for closure due to non-installation of OCEMS, non-adherence to the action plans submitted etc.
- c) Intentional avoidance of data submission or data manipulation by tampering the Online Continuous Emission / Effluent Monitoring systems.
- d) Accidental discharges lasting for short durations resulting into damage to the environment.
- e) Intentional discharges to the environment -- land, water and air resulting into acute injury or damage to the environment.
- f) Injection of treated/partially treated/ untreated effluents to ground water.

1.3.1 In the instances as mentioned at *a, b and c* above, Pollution Index may be used as a basis to levy the Environmental Compensation. CPCB has published guidelines for categorization of industries into Red, Orange, Green and White based on concept of Pollution Index (PI). The Pollution Index is arrived after considering quantity & quality of emissions/ effluents generated, types of hazardous wastes generated and consumption of resources. Pollution Index of an industrial sector is a numerical number in the range of 0 to 100 and can be represented as follows:

$$PI = f(\text{Water Pollution Score, Air Pollution Score \& HW Generation Score})$$

Pollution Index is a number from 0 to 100 and increasing value of PI denotes the increasing degree of pollution *hazard from the industrial sector*.

CPCB has issued directions to all SPCBs/PCCs on 07.03.2016 to adopt the methodology and follow guidelines prepared by CPCB for categorization of industrial sectors into Red, Orange, Green and White.

The concept of Pollution Index, which was deliberated widely with all stakeholders and agreed, shall be used for calculating Environmental Compensation. This may help in implementation of such provision throughout the country, a successful initiative in vital field of industrial pollution control.

After considering various factors including the policy implementation issues, Committee has come up with following formula for levying the Environmental Compensation in instances as mentioned at *a, b and c* including non-compliance of the environmental standards / violation of directions.

The Environmental Compensation shall be based on the following formula:

$$EC = PI \times N \times R \times S \times LF$$

Where,

- EC is Environmental Compensation in ₹
 PI = Pollution Index of industrial sector
 N = Number of days of violation took place
 R = A factor in Rupees (₹) for EC
 S = Factor for scale of operation
 LF = Location factor

The formula incorporates the anticipated severity of environmental pollution in terms of Pollution Index, duration of violation in terms of number of days, scale of operation in terms of micro & small/medium/large industry and location in terms of proximity to the large habitations.

Note:

- The industrial sectors have been categorized into Red, Orange and Green, based on their Pollution Index in the range of 60 to 100, 41 to 59 and 21 to 40, respectively. It was suggested that the average pollution index of 80, 50 and 30 may be taken for calculating the Environmental Compensation for Red, Orange and Green categories of industries, respectively.
- N, number of days for which violation took place is the period between the day of violation observed/due date of direction's compliance and the day of compliance verified by CPCB/SPCB/PCC.
- R is a factor in Rupees, which may be a minimum of 100 and maximum of 500. It is suggested to consider R as 250, as the Environmental Compensation in cases of violation.
- S could be based on small/medium/large industry categorization, which may be 0.5 for micro or small, 1.0 for medium and 1.5 for large units.
- LF, could be based on population of the city/town and location of the industrial unit. For the industrial unit located within municipal boundary or up to 10 km distance from the municipal boundary of the city/town, following factors (LF) may be used:

Table No. 1.1: Location Factor Values

S. No.	Population* (million)	Location Factor# (LF)
1	1 to <5	1.25
2	5 to <10	1.5
3	10 and above	2.0

*Population of the city/town as per the latest Census of India

#LF will be 1.0 in case unit is located >10km from municipal boundary

LF is presumed as 1 for city/town having population less than one million.

For notified Ecologically Sensitive areas, for beginning, LF may be assumed as 2.0. However, for critically Polluted Areas, LF may be explored in future.

- f. In any case, minimum Environmental Compensation shall be ₹ 5000/day.
- g. In order to include deterrent effect for repeated violations, EC may be increased on exponential basis, i.e. by 2 times on 1st repetition, 4 times on 2nd repetition and 8 times on further repetitions.
- h. If the operations of the industry are inevitable and violator continues its operations beyond 3 months then for deterrent compensation, EC may be increased by 2, 4 and 8 times for 2nd, 3rd and 4th quarter, respectively. Even if the operations are inevitable beyond 12 months, violator will not be allowed to operate.
- i. Besides EC, industry may be prosecuted or closure directions may be issued, whenever required.

A sample calculation for Environmental Compensation (without deterrent factor) is given at Table No. 1.2. It can be noticed that for all instances, EC for Red, Orange and Green category of industries varies from 3,750 to 60,000 ₹/day.

Table No. 1.2: A sample calculation for Environmental Compensation

Industrial Category	Red	Orange	Green
Pollution Index (PI)	60-100	41-59	21-40
Average PI	80	50	30
R-Factor	250		
S-Factor	0.5-1.5		
L-Factor	1.00-2.00		
Environmental Compensation (₹/day)	10,000-60,000	6,250-37,500	5,000-22,500

1.3.2 In other instances i.e. *d, e and f*, the environmental compensation may contain two parts – one requires providing immediate relief and other long-term measures such as remediation. In all these cases, detailed investigations are required from expert institutions/organizations based on which environmental compensation will be decided. CPCB shall list the expert institutions for this purpose.

In such cases, comprehensive plan for remediation of environmental pollution may be prepared and executed under the supervision of a committee with representatives of SPCB, CPCB and expert institutions/organizations.

1.4 Action Plan for Utilization of Environmental Compensation Fund

The Committee discussed about the utilization of funds, which will be received by imposing Environmental Compensation. The following Action Plan is proposed to utilize the fund for protection of the environment.

t.c.

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From

1. Akshaya Kumar Jena aged about 43 years
S/o-Late Sauri Jena
 2. Saheen Tarannum aged about 38 years
D/o-Abdul Azad Khan
 3. Ajay Swain aged about 30 years
S/o- Sampad Swain
- 1 to 3 are residence of At-Bilteruan, PO-Harianta
Ps-Tangi, Dist-Cuttack-754025

To

1. The Chairman of State pollution Control Board, Odisha, Bhubaneswar.
(Department of Forest & Environment, Government Of Odisha)
At-Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII
Bhubaneswar-751012, India
2. The Member Secretary of State pollution Control
Board, Odisha, Bhubaneswar.
(Department of Forest & Environment, Government Of Odisha)
At-Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII
Bhubaneswar-751012, India
3. Regional Officer of State Pollution Control Board, Cuttack.
At-Link Road, Surya Vihar, Po/Ps-Badambadi, Cuttack-753012
4. Collector -Cum -District Magistrate Cuttack
At/Po-Ring Road Chandinichowk, Ps-Lalbag
Dist -Cuttack-753002
5. The Station Manager/Superintendent of Nirgundi Railway Station
At- Nirgundi Railway Station, Po-Harianta
Ps-Tangi, Dist-Cuttack-754025, Odisha
6. Odisha Mining Corporation Ltd , Bhubaneswar
Head Post office , Post Box No 34, Bhubaneswar

Pin-751001 Dist :Khurda, Odisha, India

7. The Divisional Railway Manager
East Coast Railway Division, Chandrasekharpur
Bhubaneswar ,Odisha-751017
8. Regional Transport Officer ,Cuttack
At/Po-Chandlnichowk, Ps-Lalbag
Dist-Cuttack-753002
9. Tahasildar of Tangi Choudwar Tahasil,Jagatpur
At/Po/Ps-Jagatpur, Dist-Cuttack-754021
10. Kirtan Nanda Panda
M/S. Panda & Brothers
At-Manguli, Po-Harianta,Ps-Tangi
Dist-Cuttack-754025
11. Jayant Kumar Pradhan
At/Po-Sikharpur,Ps- Madhupatna
Dist-Cuttack-753003

(10 & 11 are Transporters Cum Commission Agents)

Sub : To stop/remove/shift Loading /Unloading of Coal, Gypsum, Kinker, Australia Dust & Iron ore at Nirgundi railway siding and also stop/remove/shift dump ward from Bilteruan village premises which is adjacent to the old N.H 42 to any other suitable place, and Bilteruan & other villagers have sustained health hazards due to your Dust, Air, Mud, Water, Soil, Noise pollution through your illegal Loading/Unloading at Nirgundi railway siding & dump ward from Bilteruan village premises which is adjacent to the old N.H 42.

Ref. :Violation of statutory provisions of National pollution prevention law and policy and state pollution control board guidelines with regard to sustainable development of the locality.

Dear Sir,

The aforesaid undersigned applicants beg to lay their respectful humble approach before you to do the needful for betterment and protection of the Bilteruan village premises environment, to stop/remove/shift Loading /Unloading of Coal, Gypsum, Kinker, Australia Dust & Iron ore at Nirgundi railway siding and also stop/remove/shift dump ward from Bilteruan village premises which is adjacent to the old N.H 42 to any other suitable place otherwise such Dust, Air, Mud, Water, Soil, Noise pollution would lead to deadly disease like Bronchitis, Longs failure, Heart problem, Cancer and Kidney failure.

1. That as you know Bilteruan villagers are very innocent peace living persons. But you all the addressee collision with each other always creating pollution hazards in village premises by causing Coal, Gypsum, Kinker, Australia Dust & Iron ore illegal Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport.
2. That as you know that your illegal Loading /Unloading work at Nirgundi railway siding is adjacent to the Old NH 42 & NH 16 and 20 meters away from Bilteruan and other village. Due to your illegal Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport, it has been caused of serious pollution problem for Dust, Air, Mud, Water, Soil, Noise pollution of etc at Bilteruan & other villagers including residential house of villagers and other locality has been crumbled with pollution along with health hazards and also destroyed the natural resources of the villages environment.
3. That addressee no.1 guidelines for environmental management in mineral stack yards and railway siding in PARA 4 sub PARA i & ii says(the boundary of proposed site shall be at an aerial distance of at least 100 meter from State/National Highway) & (The bounbdary of the proposed site shall be at an ariel distance of at least 500 meter away from Schools, collages, Hospitals, Archeological monuments and other sensitive areas).

4. That Bilteruan villagers and other general public always facing inconvenience for their movement for your illegal Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport has not realized the existing regulations for pollution control and waste management in residential premises of Bilteruan villagers & other villages and have destroyed the sustainable development of the locality for your self satisfaction and private profit making.
5. That due to your Coal,Gypsum, Kinker, Australia Dust & Iron ore Loading /Unloading works at railway siding & dump ward from Bilteruan village premises through road transport & emission of pollution in village premises of Bilteruan other village locality and other general public always facing inconvenience for healthy life, business and loss caused to cultivation of crops/other paddy fields ,chaka nala and other sensitive premises like Village,School,Temple, Muxjit, cattle field etc are very badly affected violating pollution prevention mandates.
6. That village residential premises of Bilteruan villager & other villagers on several occasions have approached you to stop/remove and/or to shift your illegal Coal,Gypsum,Kinker, Australia Dust & Iron ore Loading /Unloading Nirgundi railway siding & dump ward from Bilteruan village premises through road transport in the locality for protecting their life and livelihood.
That for being affected through your illegal Coal,Gypsum, Kinker,Australia Dust & Iron ore Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport , Bilteruan villagers and other general public have been sustained Asthma, Bronchitis, Longs failure,Heart problem,Cancer and Kidney failure and other diseases and they have spent a lot of money every month for health checkup and Dr.is advising to the villagers and local people for living in pollution free locality. So it is your fundamental duty to look after the environmental issues causing to serious health problems. and to have healthy life and livelihood.

7. That as you know that Bilteruan & other villagers are very poor person and they are suffering many disease due to your illegal works of Coal,Gypsum, Kinker,Australia Dust & Iron ore Loading /Unloading at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport and due to your pollutions the villager's have also lost their cultivating paddy fields, but you all the addressee are showing more powerful than the statutory provision of National Pollution Prevention Law and Policy and State Pollution Control Board guidelines with regard to sustainable development.
8. That you have dishonestly destroyed sustainable development in the entire locality including Bilteruan and other village premises and to other general public as your illegal works of Coal,Gypsum, Kinker,Australia Dust & Iron ore Loading /Unloading at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport has not prevented/checked to stop creating Dust,Air, Mud, Water,Soil,Noise pollution and has not spend a single pie for controlling pollution and has not reduced the waste of causing serious health hazards in bilteruan village premises and the locality and such action of your illegal Coal,Gypsum,Kinker,Australia Dust & Iron ore Loading /Unloading railway siding & dump ward from Bilteruan village premises through road transport contravening all rules and regulations of pollution.
9. That addressee no 10 and 11 forcibly encroached the Nayana Jhori and Chakanala of old NH 42 side and high level Canal side by gather coal,Gypsum and creating problem in flow of water in rainy day and villager facing flood situation.
10. That it is very sad to say that addressee No 10 & 11 collusion with other addressee mix Ash with Coal for profit making purpose and transport it out of state and creating more pollution for mixing of Coal with Ash.
11. That in our constitutional mandate under Article-48(A) and 51(A) it is the duty of every citizen to protect the nature and environment for the healthy living life of people and to do the needful of the future generation.

12. That in this regard the aforesaid undersigned persons have served a representation / grievances to the all the addressee on dtd 23.05.2019 to stop/remove/shift your illegal Coal, Gypsum, Kinker, Australia Dust & Iron ore Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport to any other place but you all the addressee showing more powerful than rules and creating more pollution of health hazards due to your Dust, Air, Mud Water, Soil, Noise pollution through your illegal Loading/Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport.

It is therefore, prayed that in view of the aforesaid facts and circumstances stated above, appropriate remedial measure may be taken for betterment and benefit to protect the villagers including the applicants may kindly to stop/remove/shift your illegal/serious pollution creating and health hazardous Coal, Gypsum, Kinker, Australia Dust & Iron ore Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport to any other place otherwise the matter will be pressed before the appropriate forum/State Pollution Control Board to stop your serious polluting/creating illegal Loading /Unloading works at Nirgundi railway siding & dump ward from Bilteruan village premises through road transport adhering to mandates of National Pollution Prevention Law and Policy and State Pollution Control Board guidelines etc with regard to sustainable development and law will take it own recourse.

Yours faithfully

Cuttack

Date 06/07.2022.

- 1 - Ashoka Kumar Jena
- 2 - Saheer Tarannum
- 3 - ASHA SOWAIN
- 4 - Anjum Biki
- 5 - Sahista Tarannum
- 6 - Naaz Tarannum
- 7 - Gaurami

भारतीय डाक
EO901656721IN IVR:6979901665681
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:THE CHAIRMAN, BOARD OF ODISHA
PIN:751012, Nayagalli S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665681IN IVR:6979901665681
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:THE MEMBER S, CONTEL BOARD OF
PIN:751012, Nayagalli S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665691IN IVR:6979901665681
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:THE STATION ,RAILWAY STATION
PIN:754025, Choudwar S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:17.70(Cash)Tax:2.70
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665704IN IVR:6979901665681
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:THE DIV RAIL, EAST COST RAILWA
PIN:751017, Mancheswar Railway Colony S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665514TH IVR:697990166551
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:REG TRANSPORT, LAI BAG
PIN:753002, Chandinchowk H.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30

भारतीय डाक
EO90165721IN IVR:6979901665721
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:ODISHA MINING CORP LTD, JHPS
PIN:751001, Bhubaneswar S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665721IN IVR:6979901665721
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:TAHASSILDAR TA, TAHASIL (KAL)
PIN:754021, JAGATPUR S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665491IN IVR:6979901665491
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:REG OFFICER ,BOARD CTM
PIN:753012, A D Market S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665505IN IVR:6979901665505
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:COLLECTOR - C,CTCK
PIN:753002, Chandinchowk H.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30
<Track on www.indiapost.gov.in>



भारतीय डाक
EO901665528IN IVR:6979901665528
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:KIRTAN NANADA, MANJULI, HARTANI
PIN:754025, Choudwar S.O
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:17.70(Cash)Tax:2.70
<Track on www.indiapost.gov.in>
<Dial 18002668688> <Wear Masks, Stay Safe>



भारतीय डाक
EO901665531IN IVR:6979901665531
SP CHOUDWAR S.O <754025>
Counter No:1,06/07/2022,11:58
To:JAYANTA KUMA, SIMHARPUR, NADH
PIN:753003, Colleege Square S.O (Duttack)
From:AKSHYA KU JENA ,BILLTERUAN
Wt:40gms
Amt:41.30(Cash)Tax:6.30

t.c.

(Handwritten signature)

