

Supplementary Action Taken Report (Response) in the light of the direction issued by the Hon'ble NGT (PB), New Delhi in O.A. No. 390/2021 dated 12.10.2022 in the matter of Jairam Hansda Vs. State of Jharkhand.

1. In light of the direction issued by the Board vide Memo No. B-1264 dated 10.05.2023, the unit has submitted its representation to the Board vide its letter dated 23.05.2023.

The copy of representation submitted by the unit vide its letter dated 23.05.2023 is enclosed herewith as **Annexure 1**.

2. The unit has been issued direction under section 33(A) of the Water (Prevention & Control of Pollution) Act, 1974 and under section 31(A) of the Air (Prevention & Control of Pollution) Act, 1981 vide Board's Memo No. B-1793 dated 18.07.2023 for submission of Environmental Compensation with interest.

The copy of the direction issued to unit by the Board vide Memo No B-1793 dated 18.07.2023 is enclosed herewith as **Annexure 2**.

3. The Regional Officer, Regional Office-cum-Laboratory, Jamshedpur vide his letter No. 715 dated 18.07.2023 has submitted the inspection report w.r.t. compliance status of the unit.

The copy of inspection report of Regional Officer, Regional Office-cum-Laboratory, Jamshedpur vide his letter No. 715 dated 18.07.2023 is enclosed herewith as **Annexure 3**.

(Yatindra Kumar Das)  
Member Secretary  
SPCB, Jharkhand

Dated: 23/05/2023

To,  
Sri Y.K. Das  
Member Secretary,  
Jharkhand State Pollution Control Board.  
Dhurwa, Ranchi.

**Sub- Request for waiving off Environmental Compensation**

- Ref. 1. Directions under Order from the Hon'ble National Green Tribunal in OA No. 390/2021.  
2. Letter from your good self, bearing memo no B-488 dated 10.03.2023.  
3. Letter no 129, dated 18.03.2023 from District Industry Centre, Chaibasa.  
4. Letter from your good self, bearing memo no B-1264 dated 10.05.2023.

Dear Sir,

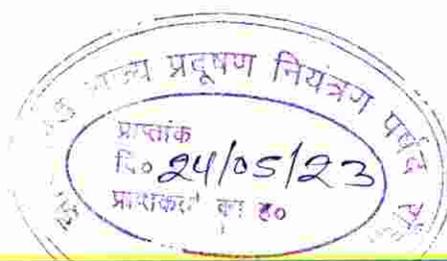
This is with regard to the Environmental Compensation of Rs. 3,95,71,875.00/- (Rupees Three Crores Ninety-Five Lacs Seventy-One Thousand Eight Hundred and Seventy-Five only) levied on our Company.

In response to the same it is to submit:

That we have previously replied to your letter bearing memo no B-488 dated 10.03.2023 via our letter dated 16.03.2023 wherein we have appreciated the fact that the Action Taken Report signed and submitted by your good self, states a positive review of our plant. Para 8 of the said report reads as:

*"the abovementioned Inspection Report submitted by the Regional Officer, JSPC Board, Jamshedpur shows that the recommendation of the Committee constituted by the Hon'ble NGT has been complied. In light of the above the Hon'ble Tribunal may be pleased to dispose of the matter."*

The copy of the said ATR is annexed as **Annexure-1**.



Sri Sivastava  
Gaurav  
27/5/23  
SIS3  
07/06/23

Resigned  
Sbhr  
23/5/23  
Sri Ravi  
Put up immediately  
5/6/23  
06-06-23

That your good self may kindly apprise the fact wherein the Hon'ble NGT consisted a committee which consisted of members **from CPCB, State PCB, Regional Office of MoEF & CC and DM- East Singhbhum and wherein the State PCB acted as the nodal agency** as per the said order of the Hon'ble NGT. The complainant was unable to prove anything before the said committee which was alleged by him against our Company during the site inspection. The committee in its Inspection Report which was addressed to your good self by Regional Officer, JSPCB vide Letter ref no. 328 dated 25.04.2022 has stated after its observations in pg 4 as under:

"During visit, the committee members also interacted with the applicant/Petitioner Mr. Jairam Hansda. The applicant mentioned in the Letter/ Application that area upto 3-5 km radius around the Plant Premises is affected by Water/ Air Pollution due to Plant operation. Accordingly, Mr J Hansda was requested to show the affected area, water body etc and Medical history/ treatment of affected persons due to pollution from Plant operation. The Applicant requested Committee Members for site visit around the Plant premises. Accordingly, the Members including Plant Officials visited nearby Water Bodies (2 Nos.) located at SAMARSAHI Village (South side of the Plant). During visit, as observed local populace were using Pond water for bathing, washing etc. The committee members also interacted with Local/ Villagers (Smt Savita Manna, Mr Khokon Bhumij, Mr Umapada Pramanik, Mr Santosh Madina, Mr Ramapada Pramanik, Mr Raja Pramanik) and as they informed, they are not suffering from any disease (like TB, Asthma etc) as alleged by the Applicant. Significant amount of black dust was observed on leaves of trees upto 200 mtr, then less amount of black dust deposition on leaves was observed at further distance of 200 mtr, in wind direction. **The Applicant could not describe about the Fishery business affected due to pollution from the Plant operation which he mentioned in the Application. Further Mr Jairam Hansda could not show the Affected Place/ Affected people due to pollution from**

**Plant operation as claimed in his application to Honourable NGT."**

The copy of the said Inspection Report is attached herewith as **Annexure-2**.

That the latest inspection of our unit carried by inspection committee formed by the office of **General Manager, District Industry Centre (DIC), Chaibasa and informed to us via letter no. 129 dated 18.03.2023** also gives a positive review of our plant by stating compliance of all the previous findings which is stated as under:

- “1. इकाई द्वारा SOX, NOX एवं PM उत्सर्जन के अनुवीक्षण हेतु 02 (दो) स्टैक मॉनिटरिंग यंत्र स्थापित किये गए हैं, जिनके द्वारा हवा में SOX NOX एवं PM के स्तर की अणुवीक्षा की जा रही है। दोनों स्टैक मॉनिटरिंग यंत्र कार्यरत पाए गए। SOX, NOX एवं PM के स्तर निर्धारित सीमा के नीचे पाए गए
2. दोनों स्टैक मॉनिटरिंग यंत्र द्वारा दर्ज प्रदूषण के आकड़े झारखण्ड राज्य प्रदूषण नियंत्रण, रांची के सर्वर पर सीधा प्रसारित किये जा रहे हैं।
3. DRI (Direct Reduced Induction) Plant के **Rotary Kiln Cap** ढके हुए पाए गए।
4. इकाई में अनेक वाटर स्पिंकलर लगे पाए गए एवं पाइप से पानी का छिड़काव भी किया जा रहा था।
5. इकाई प्रतिनिधि द्वारा जानकारी दी गयी कि दो भूखंड, जो इकाई की अपनी भूमि है, को वृक्षारोपण हेतु चिह्नित किया गया है। इनमें से एक भू-खंड जो लगभग 3 एकड़ का है, उसमें वृक्षारोपण का कार्य प्रारम्भ हो चुका है एवं लगभग 400-500 वृक्षों को लगाया जा चुका है। दूसरे भू-खंड में, जो लगभग 2.5 एकड़ का है, उसमें शेष वृक्ष वर्षा ऋतु में लगाने का संकल्प है, ताकि सही मौसम में वृक्ष पनप सकें।”

The copy of the said report which was addressed to your good self via letter no. 151 dated 29.03.2023 is attached as **Annexure-3**.

That it is pertinent to mention herewith that we have also submitted a letter to the **District Forest Officer (DFO), Jamshedpur Division** wherein we have informed about the 4000 number of trees planted during the FY 2022-23 and have also **committed to plant 5000 number of trees** within a period of three months from June, 2023 **under their guidance and supervision at our plant site, the cost of which has also been proposed to be incurred by us.** The plant saplings have already been purchased and kept in our nursery. The copy of the said letter addressed to DFO along with Bills of saplings purchased is annexed as **Annexure-4.**

In light of the aforesaid submissions it can be seen that the reports mentioned herewith, gives a positive review of our plant. Furthermore your good self may kindly note that as highlighted above, the first inspection report by the Joint Committee also mentioned of the fact that the applicant was unable to prove the allegations made against our Company to Hon'ble NGT. Therefore it is our humble request to kindly waive off the environmental compensation levied on our Company which has arisen due to the **false allegations made against our Company by a single individual for his personal benefits and has already been recommended for disposal by your good self to the Hon'ble NGT.**

For **Shah Sponge & Power Limited**



Authorized Signatory

Copy to- Chairman, Jharkhand State Pollution Control Board

**Action Taken Report (Response) in the light of the direction issued by the Hon'ble NGT (PB), New Delhi in O.A. No. 390/2021 dated 12.10.2022 in the matter of Jairam Hansda Vs. State of Jharkhand.**

1. In light of the show cause notice the unit has submitted its representation to the Board vide its letter dated 30.09.2022. The details of which are as follows:

SL		
(1)	That, exceedance of SOx and NOx (as per OCEMS display), however PM value was found within the prescribed limit.	The OCEMS system is working properly and data is being transferred to JSPCB & CPCB continuously.  The SOx and NOx emissions were within the limit and are maintained at present also. It can be verified, any time. Annexure-1
(2)	That, leakages from the kiln feeding and discharge to cooler.	The leakages from kiln feeding has been controlled with replacement of the worn out iron parts and addition water spraying in the hopper.  The cooler discharge section bag filter suction has been improved to control the leakages/fugitive emissions.
(3)	That, leakages from the kiln Cap.	A minimal kiln cap vent takes place to maintain the optimal pressure in the kiln, with respect to flow of flue gases to WHRB. It is not a regular/continuous process and takes place only as emergency as per automatic PLC controller of pressure in the kiln. It is always passed through the WHRB. The venting is loss to power generation hence avoided most of the time.
(4)	That, sufficient greenbelt not developed as per CPCB norms	Till date, we have already made greenbelt plantation of 6000 trees on an area of 6.5 acres and we propose to plant balance 5500 trees over 5.7 Acres within two years. Plan for 1 year (by March 2023) 3000 trees, area 3.5 Acres, For second year (by March 2024) 2500 trees over an area 2.2 acres

The copy of the representation submitted by the unit to the Board vide its letter dated 30.09.2022 is enclosed herewith as **Annexure 1**.

2. In light of above the inspection report was sought from the Regional officer, JSPC Board, Jamshedpur vide Board's Ref. No. B-2225 dated 14.10.2022 after verification of the reply submitted by the unit.

The copy of the Board's Ref. No. B-2225 dated 14.10.2022 is enclosed herewith as **Annexure 2**.

3. The Regional officer, JSPC Board, Jamshedpur vide memo Ref. No. 721 dated 02.11.2022 has submitted the verification report. The details of which are as follows: -

Sl. No.	Observation by the committee	Verification report
1.	That, exceedance of Sox	During inspection, Data of SOx, Nox and PM not found transmitted to JSPC Board, Server from 2 x 100 TPD Sponge Iron Plant. It was informed that due to thundering, some technical issues has been occurred. However, from 31.10.2022, data is found being transmitted to JSPCB Board, server. The value of Sox, Nox and PM is found within prescribed limit. Mother Board sensor card of stack attached with power plant has been burnt out due to thundering. Hence, data not being transmitted from the stack attached with the power plant.
2.	That, leakage from the kiln feeding and discharge to cooler.	Leakage from kiln feeding has been in control. Leakage from cooler discharge has also found under control. However, it is necessary to changes the torn out bags immediately when, it is noticed.
3.	That, Leakage from the kiln cap.	Leakage from kiln cap. Of rotary kiln 3 & 4 found. The unit representative informed that due to leakage in Boiler of WHRB the emergency cap has been opened to maintain the pressure in rotary kiln.
4.	That, sufficient green belt not developed.	The unit representative informed that about 500 No. of trees has been planted in last three months. But still there is need of more plantations. Unit representative informed that tree plantation is continued and more plantation will be done near future.

The copy of the verification report submitted by the Regional officer, JSPC Board, Jamshedpur vide Memo No. 721 dated 02.11.2022 is enclosed herewith as **Annexure 3**

4. In the light of the observations made during verification, the Unit was directed vide Board's Ref. No. B-2411 dated 22.11.2022 to submit the compliance(s) on the issue(s) mentioned. The details of which are as follows: -

- (1) Data of Sox, Nox and PM not found transmitted to JSPC Board server from 2x 100 TPD sponge Iron Plant.
- (2) Torn out bags has to be removed to prevent leakage from kiln feeding and cooler discharge.
- (3) Leakage from Kiln cap of roraty Kiln 3 & 4 was found;
- (4) More tree plantation is required.

The copy of the direction issued to unit vide Board's Ref. No. B-2411 dated 22.11.2022 is enclosed herewith as **Annexure 4**

5. In light of the direction issued by the Board the unit has submitted its representation to the Board vide its letter dated 29.11.2022. The details of which are as follows:

SL	Observation	Compliance
(1)	Data of Sox, NOx and PM not found transmitted to JSPC Board Server from 2x100 TPD sponge Iron Plant.	The data is being transmitted from both stacks to the JSPCB Server.
(2)	Torn out bags has to be removed to prevent leakage from kiln feeding and cooler discharge.	The leakage from kiln feeding has been controlled with replacement of the torn-out parts and additional water spraying in the hopper. The cooler discharge section bag filter suction has been improved to control the leakages.
(3)	Leakage from kiln cap of rotary kiln was found.	A minimal kiln cap vent takes place during emergency to maintain the optimal pressure in the kiln, with respect to flow of flue gases to WHRB in order to avoid high pressure. The venting is a loss to power generation hence is seriously monitored all the time.
(4)	More tree plantation is required	Till date, we have already made greenbelt plantation of 6000 trees on an area of 6.5 acres and we propose to plant balance 5500 trees over 5.7 acres within two years. Plan for 1st year (by March, 2023) 3000 trees in area of 3.5 acres, For second year (by March, 2024) 2500 trees over 2.2 acres.

The copy of representation submitted by the unit vide its letter dated 29.11.2022, is enclosed herewith as **Annexure 5**

6. In light of above the inspection report was sought from the Regional officer, JSPC Board, Jamshedpur vide Ref. No. B-2633 dated 19.12.2022 after verification of the reply submitted by the unit.

The copy of inspection report sought from the Regional officer, JSPC Board, Jamshedpur vide Board's Ref. No. B-2633 dated 19.12.2022 is enclosed herewith as **Annexure 6**

7. The Regional officer, JSPC Board, Jamshedpur vide memo No.1190 dated 29.12.2022 has submitted the verification report. The details of which are as follows: -

SN.	Observation	Verification report
1.	Data of Sox, NOx and PM not Found transmitted to JSPC Board Server from 2 x 100 TPD Sponge Iron Plant.	During inspection 2 x 100 TPD rotary kiln and power plant found in operation. Online continuous monitoring system for stack monitoring attached with ESP was also found in operation. Data attached at Annex-I.
2.	Torn out bags has to be removed to prevent leakage from kiln feeding and cooler discharge.	Leakage from kiln feeding has been in control. Leakage from cooler discharge has also controlled. The unit has changed the torn out bags. Purchase copy of bags of bag filter is herewith attached at Annex-II.
3.	Leakage from kiln cap of rotary kiln was found.	Leakage from kiln cap has been controlled. The unit representative informed that cast able of kiln cap got damaged due to opening/closing of the cap to maintain pressure in kiln. They regularly repair the damaged constables.
4.	More tree plantation is required.	The plantation along the boundary wall found. The unit representative informed that by March, 2023 they have planned to do tree plantation in 3.5 Acres and by March, 2024 It will be in another 2.2 Acres of land. Altogether 5500 trees will be planted outside the premises in own land. In last three months they have planted 500 No. of trees. It is necessary to take measures for good survival rate of plants.

The copy of inspection report of Regional officer, JSPC Board, Jamshedpur submitted vide Ref. No.1190 dated 29.12.2022 is enclosed herewith as **Annexure 7**.

8. The abovementioned Inspection Report submitted by the Regional Officer, JSPC Board, Jamshedpur shows that the recommendation of the Committee constituted by the Hon'ble NGT has been complied. In light of the above the Hon'ble Tribunal may be pleased to dispose of the matter.

(Yatindra Kumar Das)  
Member Secretary  
SPCB, Jharkhand

### **Inspection Report**

In the matter Original Application No 390/21/PB, Hon'ble National Green Tribunal vide order dated 24/01/2022, issued direction based upon the Grievance raised by Sri Jairam Hansda against M/s Shah Sponge Iron & Power Ltd, Juri, East Singhbhum. The Hon'ble NGT issued following direction:

*"Having regard to the seriousness of the allegations, it appears necessary to ascertain the factual position in the matter through a joint Committee of the CPCB, State PCB, Regional Office of MoEF& CC, Bhubaneswar and the District Magistrate-East Singhbnum, (Jharkhand). The State PCB will be the Nodal agency for coordination and compliance. The joint Committee may meet within four weeks and 2 undertake site visit and look into the grievance and take remedial action in accordance with law after following due process".*

Accordingly, following Officials Inspected the site on 18<sup>th</sup> April 2022:

- Sri Nandkishore Lal, ADM (L& O), East Singhbhum, Jamshedpur
- Dr T H Mahato, Scientist D, MoEF&CC, Ranchi
- Sri Jitendra Prasad Singh, Regional Officer, JSPCB, Jamshedpur
- Sri Sandeep Roy, Scientist D, CPCB, RD, Kolkata

Following Officials from M/s Shah Sponge & Iron Ltd were present during inspection:

- Sri Anup Sinha, Director
- Sri S P Mishra, GM-Tech

Sri Jairam Hansda, Applicant/ Petitioner of the said matter was also present during the inspection.

**About the Plant:**

M/s Shah Sponge Iron & Power Ltd is in operation at Village Juri, East Singhbhum, Jharkhand. Following manufacturing/ production facilities are available with the plant:

- DRI (Sponge Iron) Unit: 100 TPD x 4
- Captive Power Plant: 8 MW (4 MW WHRB & 4 MW AFBC Boiler)
- Fly ash Bricks: 1.4 Lac Brick/ day
- Induction furnace: 12 TPD x 4

ESP has been installed with DRI and CPP as APCD. The Stack height is reported to be 65 m with dia of 2.5 m. Bag filters have been installed at strategic location of material conveying area.

The Consent to Operate (CTO) is valid till 30/06/2024 and Hazardous waste authorization is valid till 11/08/2025.

**Observation:**

- I. The plant was found operational during visit. The total area of the plant is reported to be 35 Acres.
- II. Online Continuous Emission Monitoring system (OCEMS) has been installed in two Stacks and emission data has been transferred to JSPCB & CPCB Servers. The OCEMS is installed by M/s Vasthi Instruments Pvt Ltd.
- III. The OCEMS calibration is carried out by M/s Vasthi Instruments Pvt Ltd. and Calibration is valid till 27/08/2022.
- IV. During inspection the OCEMS analysed value for SO<sub>x</sub> & NO<sub>x</sub> were observed (intermittently) as 90 mg/Nm<sup>3</sup> & 91 mg/Nm<sup>3</sup> respectively which were exceeding the CTO prescribed norms of 80 mg/Nm<sup>3</sup>.
- V. During inspection, leakages from Kiln (raw material feeding end) and DRI Discharge to Cooler were observed thus causing fugitive emission in the premises.

- VI. The intermittent leakages from DRI emergency cap was also observed causing fugitive emission.
- VII. Transport road inside the premises was mainly paved by pavers block. Dust accumulation was observed on the premises and causing fugitive emission due to plying of vehicles.
- VIII. During visit water sprinkling observed on the road between Plant and Highway. The said road length is 800 m (approx). As informed, water is sprinkled 3-4 times in a day however it may not be sufficient to control generation of fugitive emission on the approach road.
- IX. Dust (black) layer has been observed on the Leaves inside the plant premises. This reflects the frequent fugitive emission from Plant operations.
- X. Water sprinklers have been mounted on road side inside the plant premises, however during visit the sprinkler were not in operation.
- XI. The char generated from DRI unit is used in the AFBC Boiler for power generation. As informed, char generation is 350 TPD (approx) and its utilisation is 100%.
- XII. Fly ash generated from CPP (AFBC Boiler) is used for low lying area filling and Brick manufacturing. Daily ash generation is 280 T (approx). The plant is having their own Brick Manufacturing unit inside the premises.
- XIII. Daily water consumption for industrial and domestic utilities is reported to be 305 KL. CGWA has granted permission to draw water upto 905 KLD. As informed, any type of Industrial water is not discharged outside of the Plant. Kiln cooling water is continuously recycled in the process.
- XIV. Plantation has been observed inside the premises. From 2017 to 2022 they reportedly planted 5565 nos. trees of various varieties like Sagwan, Gulmohar, Bargad, Jamun, Shisham etc. The plantation has been reportedly done over 6 acres of area. However, green belt as per CPCB norms has not been developed.

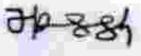
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- XV. The project reported carrying out activities like Health Check up camp, to provide Ambulance, Drinking water distribution, Organising Cricket/ Football match etc. as activity under Corporate Social Responsibility. However, they were unable to provide respective documents like log book of Ambulance movement, Health check-up records/ photographs etc.

During visit, the committee members also interacted with the Applicant/ Petitioner Mr Jairam Hansda. The applicant mentioned in the Letter/ Application that area upto 3-5 Km radius around the Plant Premises is affected by Water/ Air Pollution due to Plant operation. Accordingly, Mr J Hansda was requested to show the affected area, water body etc and Medical history/ treatment of affected persons due to pollution from Plant operation. The Applicant requested Committee Members for site visit around the Plant premises. Accordingly, the Members including Plant Officials visited nearby Water Bodies (2 Nos.) located at SAMARSAHI Village (South side of the Plant). During visit, as observed local populace were using Pond water for bathing, washing etc. The committee members also interacted with Local/ Villagers (Smt Savita Manna, Mr Khokon Bhumij, Mr Umapada Pramanik, Mr Santosh Madina, Mr Ramapada Pramanik, Mr Raja Pramanik) and as they informed, they are not suffering from any disease (like TB, Asthma etc) as alleged by the Applicant. Significant amount of black dust was observed on leaves of trees upto 200 mtr, then less amount of black dust deposition on leaves was observed at further distance of 200 mtr, in wind direction. The Applicant could not describe about the Fishery business affected due to pollution from the Plant operation which he mentioned in the Application. Further Mr Jairam Hansda could not show the Affected Place/ Affected people due to pollution from Plant operation as claimed in his application to Honourable NGT.

However, during inspection, on following aspects, Plant was found Non-complied:

- Exceedance of SO<sub>x</sub> & NO<sub>x</sub> (as per OCEMS Display), however PM value was found within the prescribed limit.
- Leakages from Kiln feeding and discharge to cooler.
- Leakages from Kiln Emergency cap.
- Sufficient green belt not developed as per CPCB norms.

It is, therefore, proposed that M/s Shah Sponge & Power Ltd may be directed to submit time bound action plan for compliance of the above and submit a Bank Guarantee of Rs 25 Lac (Twenty five lac only) with concerned Dept.

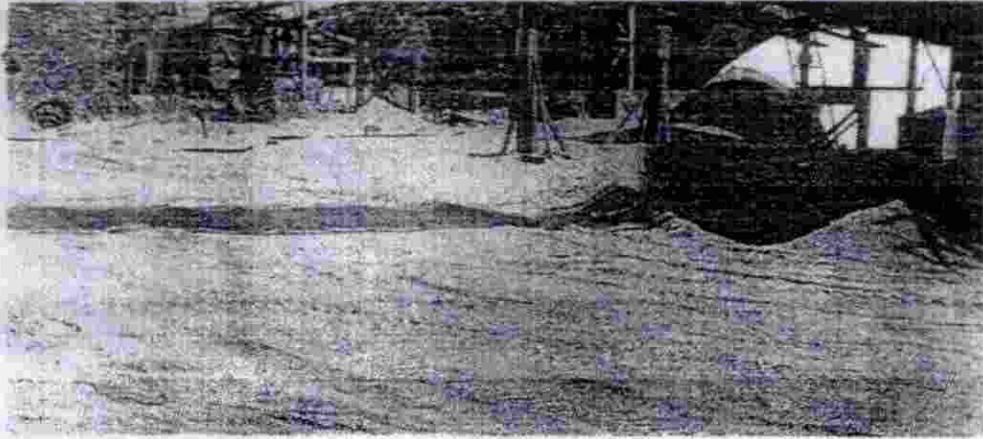
			
(Dr T H Mahato) Scientist D	(Sandeep Roy) Scientist D	(J P Singh) Regional Officer	(Nand Kishore Lal) ADM- L&O

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Dust layer on tree leaves (inside the Plant)



Dust spillage in Plant area



Water pond at SAMARSAHI Village



**Water body at SAMARSAHI Village**



**Status of Leaves (1 km from Plant area), No black dust found**

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A photograph of an OCEMS (On-line Continuous Emissions Monitoring System) display. The display is divided into three columns, each representing a different pollutant. The first column shows SO2 with a reading of 0090. The second column shows NOx with a reading of 0091. The third column shows SPM with a reading of 031.5. Below each reading, there is a label indicating the unit: 'mg/Nm3' for SO2 and NOx, and 'mg/Nm3' for SPM. The entire display is set against a dark background.

SO2	NOx	SPM
0090	0091	031.5
mg/Nm3	mg/Nm3	mg/Nm3

OCEMS Reading for DRI (@1310hrs dt 18/01/2022)

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## कार्यालय महाप्रबंधक, जिला उद्योग केंद्र, चाईबासा

पत्रांक 151 / चाईबासा, दिनांक 29 / 03 / 2023

प्रेषक,

शम्भू शरण बेठा  
महाप्रबंधक,  
जिला उद्योग केंद्र, चाईबासा।

सेवा में,

सदस्य सचिव,  
झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद  
झारखण्ड, रांची।

विषय:-

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद, रांची द्वारा सर्वश्री शाह स्पंज एंड पावर लि०, मौजा जुडी/बरसाई, थाना जुडी, जिला पूर्वी सिंहभूम को दिए गए निदेश के अनुपालन के सम्बन्ध में।

प्रसंग:-

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद, रांची का ज्ञापाङ्क B-488/रांची, दिनांक 10/03/2023

महाशय,

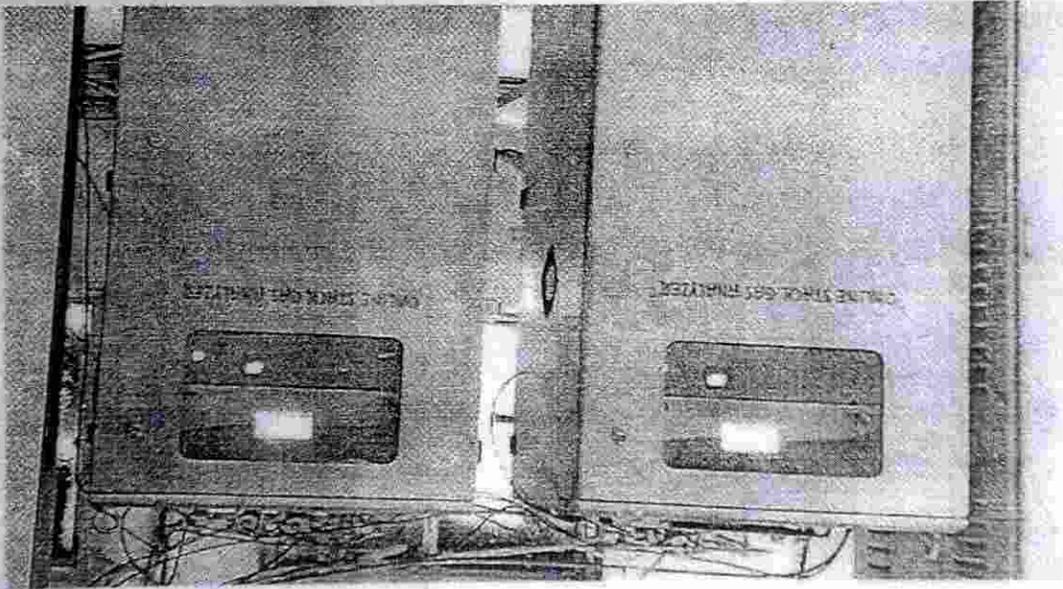
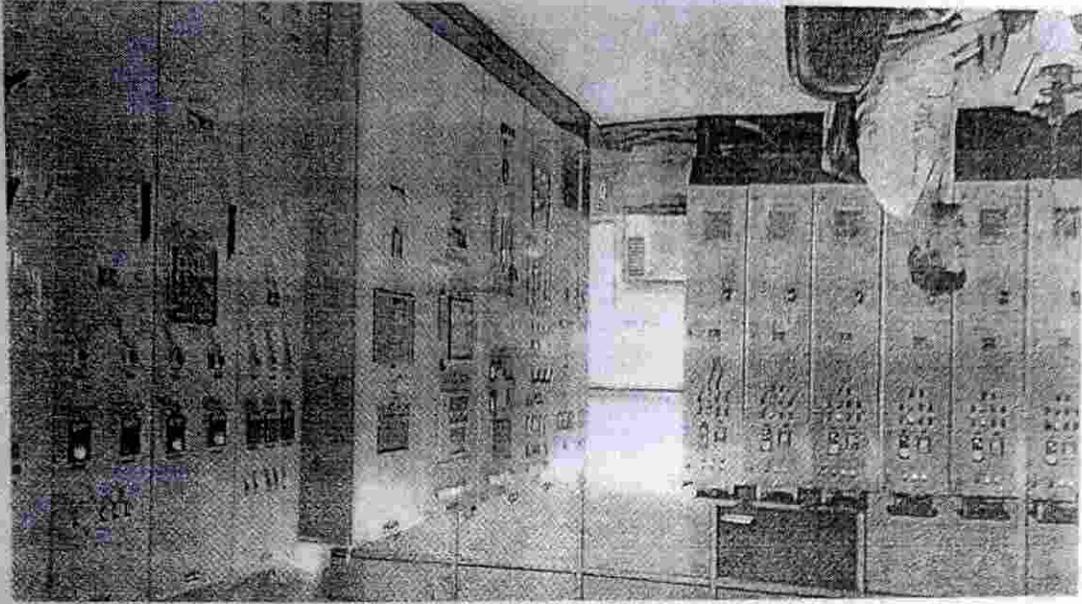
उपरोक्त प्रासंगिक विषयक सूचित करना है कि झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद, रांची द्वारा सर्वश्री शाह स्पंज एंड पावर लि०, मौजा जुडी/बरसाई, थाना जुडी, जिला पूर्वी सिंहभूम को दिए गए निदेश के अनुपालनार्थ दिनांक 22/03/2023 को इकाई का भौतिक स्थल निरीक्षण कराया गया। स्थल निरीक्षण के क्रम में निम्न तथ्य पाए गए:-

1. इकाई द्वारा SOX, NOX एवं PM उत्सर्जन के अनुवीक्षण हेतु 02 (दो) स्टैक मॉनिटरिंग यंत्र स्थापित किये गए हैं, जिनके द्वारा हवा में SOX, NOX एवं PM के स्तर की अणुवीक्षा की जा रही है। दोनों स्टैक मॉनिटरिंग यंत्र कार्यरत पाए गए। SOX, NOX एवं PM के स्तर निर्धारित सीमा के नीचे पाए गए (स्टैक मॉनिटरिंग रिपोर्ट संलग्न)
2. दोनों स्टैक मॉनिटरिंग यंत्र द्वारा दर्ज प्रदूषण के आकड़े झारखण्ड राज्य प्रदूषण नियंत्रण, रांची के सर्वर पर सीधा प्रसारित किये जा रहे हैं।
3. DRI (Direct Reduced Induction) Plant के Rotary Kiln Cap ढके हुए पाए गए।
4. इकाई में अनेक वाटर स्प्रींकलर लगे पाए गए एवं पाइप से पानी का छिड़काव भी किया जा रहा था।
5. इकाई प्रतिनिधि द्वारा जानकारी दी गयी कि दो भू-खंड, जो इकाई की अपनी भूमि है, को वृक्षारोपण हेतु चिह्नित किया गया है। इनमें से एक भू-खंड जो लगभग 3 एकड़ का है, उसमें वृक्षारोपण का कार्य प्रारम्भ हो चुका है एवं लगभग 400-500 वृक्षों को लगाया जा चुका है। दूसरे भू-खंड में, जो लगभग 2.5 एकड़ का है, उसमें शेष वृक्ष वर्षा-ऋतु में लगाने का संकल्प है, ताकि सही मौसम में वृक्ष पनप सकें।

सूचनार्थ एवं आवश्यक कार्यार्थ प्रेषित। सूचनार्थ एवं आवश्यक कार्यार्थ प्रेषित।

विक्षासभाजन

महाप्रबंधक, 29-03-2023  
जिला उद्योग केंद्र, चाईबासा।



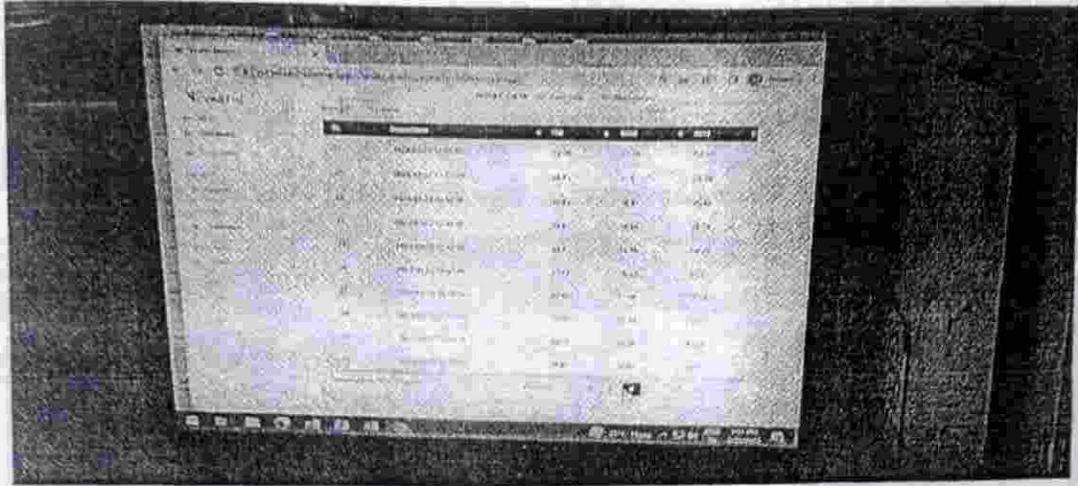
इकाई द्वारा SOX, NOX एवं PM उत्सर्जन के अनुवीक्षण हेतु 02 (दो) स्टैक मॉनिटरिंग पर स्थापित किए गए हैं जिनके द्वारा दूध में SOX, NOX एवं PM के स्तर की अनुवीक्षण की जा रही है। दोनों स्टैक मॉनिटरिंग पर कार्यरत पाए गए। SOX, NOX एवं PM के स्तर निरधारित सीमा के नीचे पाए गए (छायाचित्र एवं स्टैक मॉनिटरिंग रिपोर्ट संलग्न)

निरीक्षण के क्रम में निम्न वृत्त पाए गए:-

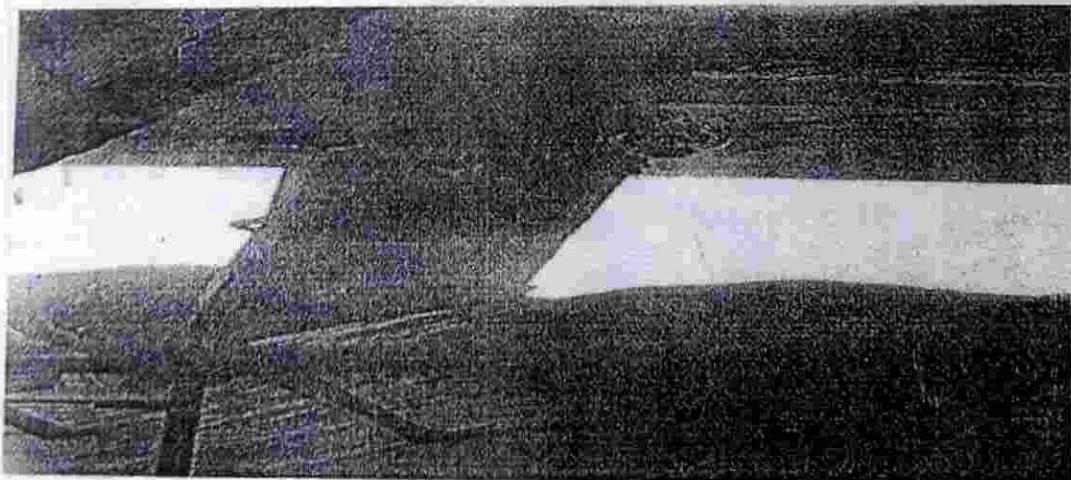
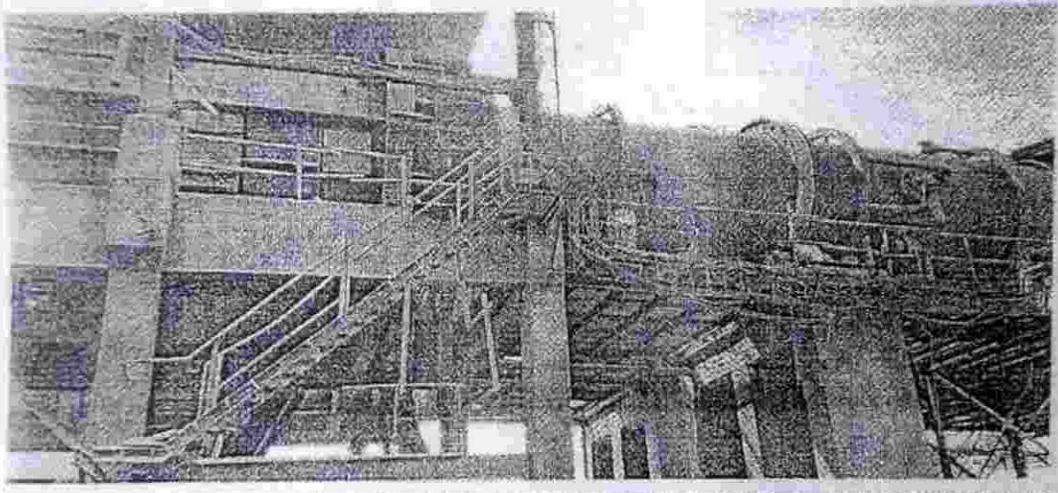
महाप्रबंधक, निदेशानुसार कार्यालय पत्रांक 129/बाईबासा, दिनांक 18/03/2023 के अनुपालनाथ सर्वश्री बाह्य स्लॉट एवं बाहर निरीक्षण, मौजाना गुंडी, अंततः धोका, जिला पूर्वी सिरोमण का स्लॉट निरीक्षण आज दिनांक 22/03/2023 में किया गया। निरीक्षण के क्रम में इकाई के महाप्रबंधक श्री धीरज सिन्हा एवं अन्य प्रदाधिकारी उपस्थित थे।

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2. दोनों स्टैक मॉनिटरिंग यंत्र द्वारा दर्ज प्रदूषण के आकड़े झारखण्ड राज्य प्रदूषण नियंत्रण, रांची के सर्वर पर सीधा प्रसारित किये जा रहे हैं। (छायाचित्र संलग्न)

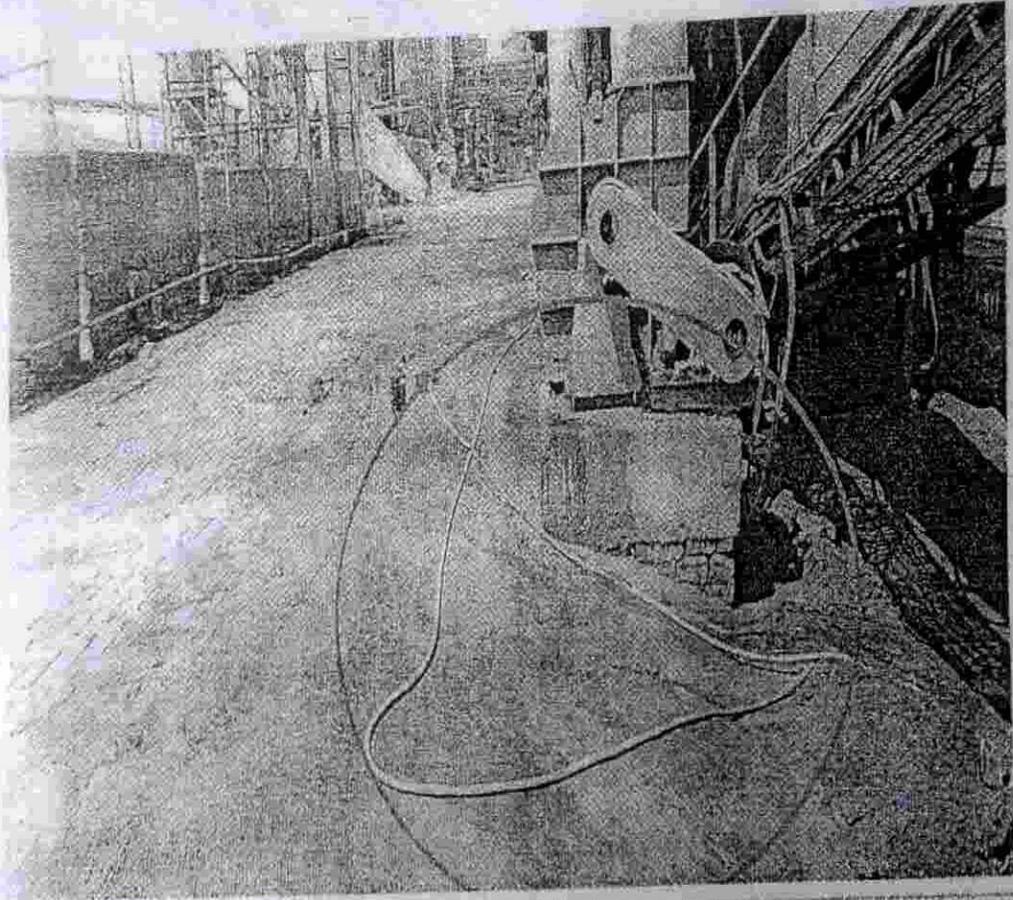
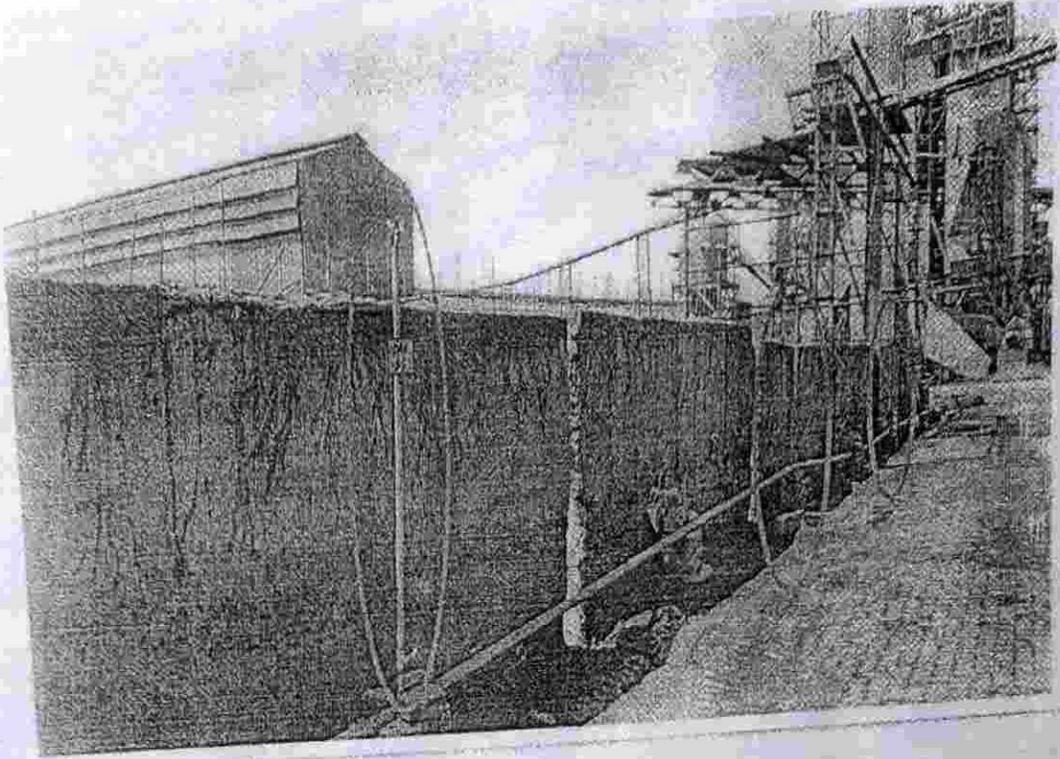


3. DRI (Direct Reduced Iron) Plant के Rotary Kiln Cap ढके हुए पाए गए। (चित्र संलग्न)

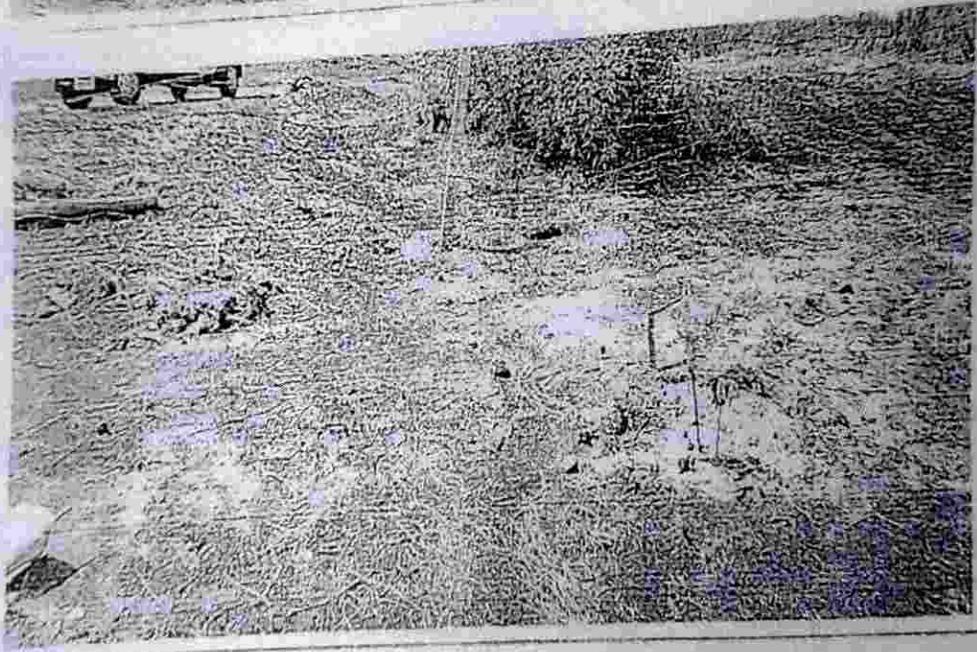
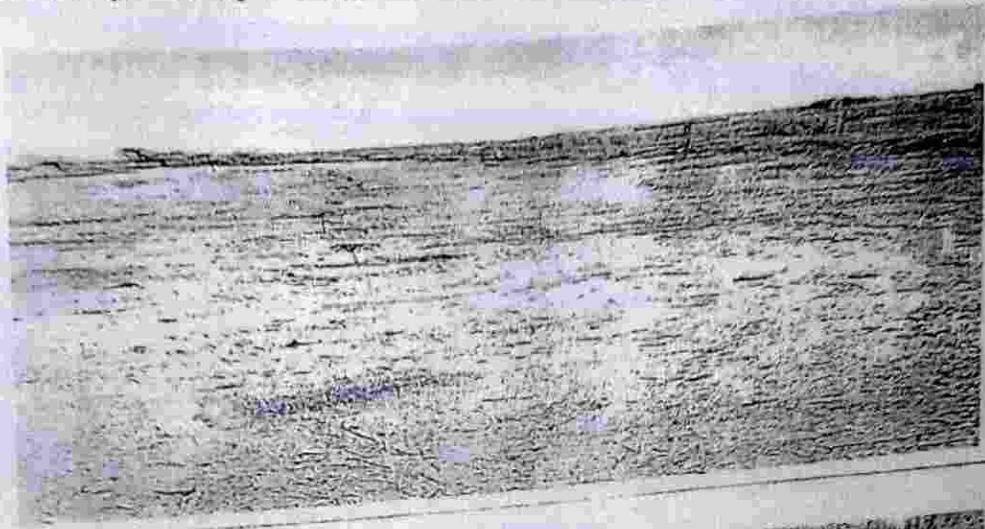


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4. इकाई में अनेक वाटर स्पिंकलर लगे पाए गए एवं पाइप से पानी का छिड़काव भी किया जा रहा था। (चित्र संलग्न)



इकाई प्रतिनिधि द्वारा जानकारी दी गयी कि दो भू-खंड जो इकाई की अपनी भूमि है, को वृक्षारोपण हेतु विहित किया गया है। इनमें से एक भू-खंड जो लगभग 3 एकड़ का है, उसमें वृक्षारोपण का कार्य प्रारम्भ हो चुका है एवं लगभग 400-500 वृक्षों को लगाया जा चुका है। दूसरे भू-खंड में, जो लगभग 2.5 एकड़ का है, उसमें शेष वृक्ष वर्षा-ऋतु में लगाने का संकल्प है, ताकि सही मौसम में वृक्ष पनप सकें।



सादर सूचनार्थ।

(रोहित कुमार)  
ई०ओ०डी०बी० प्रबंधक,  
राईकेला

Anil Kumar Singh  
22/03/23  
(अनिल कुमार सिंह)  
ई०ओ०डी०बी० प्रबंधक,  
राईबासा

Syed Mudassar Anwar  
22/03/23  
(सैयद मुदस्सर अनवर)  
ई०ओ०डी०बी० प्रबंधक,  
जमशेदपुर

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SHAH SPONGE &amp; POWER LTD.

326

Date-19/05/2023

To,  
The DFO  
Jamshedpur Division  
Jamshedpur, Jharkhand.

Sub: -Tree Plantation at Shah Sponge & Power Ltd.

Dear Ma'am

We would like to inform you that we have planted around 4000 trees for greenery at our plant area in 2022-23, which are purchased from govt. nursery, Kandra and other nursery in phase wise. (Bill attached for your reference)

Further, we also plan for plantation of around 5000 trees in the month of June, July and August, 2023 in our plant area and we have already purchased various variety of trees and kept in our plant nursery.

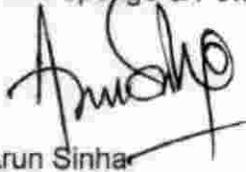
Therefore, we would like to do the above plantation under your department's supervision /guidance at our plant site. Also, we are ready to bear any charges/cost pertaining to the same as per forest department's guideline.

Kindly give your consent for the same.

Thanking you,

With Regards,

Shah Sponge & Power Ltd.



Arun Sinha

Encl.: - A copy of plantation Map is hereby attached for your reference.

SHAH SPONGE & POWER LTD.

Registered Office : 7 Grant Lane Ganpali Chambers, Room No. 310, Cabin No. 5, Kolkata W.B. 700012, CIN : U27100WB2005PLC134108  
Admn. Office : Holding No. 18, 2nd Floor, Padmalaya Building, Ram Mandir Shop Area, Bistupur, Jamshedpur-831001, (Jharkhand)  
Works : Village - Juri, Near Hata, East Singhbhum, Jharkhand -831002, GSTIN - 20AAKCS0068H1ZM  
Phone : 0657-2321512, Fax : 0657-2321518, E-mail : shahsponge@gmail.com, Website : www.shahsponge.com

# M/s. Ever Green Horticultural

## {NURSERY}

335

FARM-FULDUNGRI, NEAR-KOUSHLYA LODGE, P.O.-Ghatsila  
 Dist-East Singhbhum-832303 Leading Growers & Suppliers of all  
 Sorts of Forestry Fruits, Shurbs, Ornamental, Flowers Seeds & Plants  
 Mobile : 9431381295

L No.-D.A.O.-01/2008

GST No. - 20AKJPP9346B1ZB

Bill No. **113**

Date : 11/3/2023

Receipt/Bayer's Name-  
 Shah Sanyal & Bower H  
 Heta  
 Address

Consigner's Name-  
 Address

Sl No.	Description	Quantity	Rate	Amount	
				Rs.	P.
1.	Battu	400	17.00	6800 =	00
2.	Sisam	400	25.00	10000 =	00
3.	Kasari	400	22.00	8800 =	00
4.	Maha neem	400	15.00	6000 =	00
5.	Green Simba	400	30.00	12000 =	00
		2000 kg.			
<b>GRAND TOTAL</b>				<b>43600 =</b>	<b>00</b>

Rupees Forty three thousand  
Six Hundred only

Signature

Note : 06. Livetrees and other plants bulbs, roots, and the like cut flowers and ornamental foliage GST exempted.

FOR, M/S. EVER GREEN HORTICULTURAL NURSERY

# M/s. Ever Green Horticultural {NURSERY}

334

FARM-FULDUNGRI, NEAR-KOUSHLYA LODGE, P.O.-Ghatsila  
Dist-East Singhbhum-832303 Leading Growers & Suppliers of all  
Sorts of Forestry Fruits, Shurbs, Ornamental, Flowers Seeds & Plants  
Mobile : 9431381295

L No.-D.A O.-01/2008

GST No. - 20AKJPP9346B1ZB

Bill No. **119**

Date : **25/03/2023**

Receipt/Bayer's Name-  
**Shah Sponge & Power LTD.**

Consigner's Name-

.....Address

.....Address

**Hata.**

Sl No.	Description	Quantity	Rate	Amount	
				Rs.	P.
1.	Pattu	350	17.00	5,950	
2.	Sisam	300	25.00	7,500	
3.	Karanj	300	22.00	6,600	
4.	Maha neem	250	15.00	3,750	
5.	Green Simbal	300	30.00	9,000	
		1500 Pcs			
<b>GRAND TOTAL</b>				<b>32,800/-</b>	

Rupees **Thirty two thousand**  
**eight hundred only -**

Signature  


Note : 06. Livetrees and other plants bulbs, roots, and  
the like cut flowers and ornamental foliage GST exempted.

FOR, M/S. EVER GREEN HORTICULTURAL NURSERY

# M/s. Ever Green Horticultural

366  
{NURSERY}

333

FARM-FULDUNGRI, NEAR-KOUSHLYA LODGE, P.O.-Ghatsila  
Dist-East Singhbhum-832303 Leading-Growers & Suppliers of all  
Sorts of Forestry Fruits, Shurbs, Ornamental, Flowers Seeds & Plants  
Mobile : 9431381295

L No -D A O.-01/2008

GST No. - 20AKJPP9346B1ZB

Bill No **178**

Date **18/4/23**

Receipt/Buyer's Name-

*Shah Sanyal &*

Consigner's Name-

*Power Up  
Haldy*

Address

Address

Sl No	Description	Quantity	Rate	Amount	
				Rs	P
1	<i>Falber</i>	300	17/-	5100/-	00
2	<i>Sidam</i>	250	25/-	6250/-	00
3	<i>Korany</i>	300	22/-	6600/-	00
4	<i>Mahaneam</i>	350	15/-	5250/-	00
5	<i>Green Simber</i>	300	30/-	9000/-	00
		1500			
<b>GRAND TOTAL</b>				<b>32,200/-</b>	<b>00</b>

Rupees

*to thirty two thousand  
& two hundred only*

Signature



Note 06 Livetrees and other plants bulbs, roots, and the like cut flowers and ornamental foliage GST exempted

FOR, M/S. EVER GREEN HORTICULTURAL NURSERY



# JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI-834004  
Phone: - 2400852, 2400851 Fax :- 0651-2400850, Website:-www.jspcb.org

Ref. Letter No. \_\_\_\_\_

Ranchi, Dated:- \_\_\_\_\_

From

Y. K. Das  
Member Secretary

To

M/s Shah Sponge & Power Ltd.,  
Mauza- Juri/ Barasai, P.S. Juri,  
Dist- East Singhbhum

**Sub: Direction under section 33(A) of the Water (Prevention & Control of Pollution) Act, 1974 and under section 31(A) of the Air (Prevention & Control of Pollution) Act, 1981- regarding.**

Sir,

Whereas, Hon'ble NGT, Principal Bench, New Delhi in its order dated 24.01.2022 in O.A. No. 390/2021 (Jairam Hansda Vs State of Jharkhand) has given certain directions. The operative part of which is as follows: -

"2. Having regard to the seriousness of the allegations, it appears necessary to ascertain the factual position in the matter through a joint Committee of the CPCB, State PCB, Regional Office of MoEF & CC, Bhubaneswar and the District Magistrate-East Singhbhum, (Jharkhand). The State PCB will be the Nodal agency for coordination and compliance. The joint Committee may meet within four weeks and undertake site visit and look into the grievance and take remedial action in accordance with law after following due process. Factual and action taken report may be furnished within three months by e-mail at judicialngt@gov.in .....")

Whereas, the committee has visited the unit and its nearby areas on 18.04.2022 and has submitted the report, forwarded by Regional office, JSPC Board, Jamshedpur vide Ref. 328 dated 25.04.2022

During inspection of the committee, on following aspects, plant was found non-complied:

- (1) that, exceedence of SOx and NOx (as per OCEMS display), however PM value was found within the prescribed limit;
- (2) that, leakages from the kiln feeding and discharge to cooler
- (3) that, leakages from the kiln emergency cap
- (4) that, sufficient green belt not developed as per CPCB norms;

Whereas, the competent Authority has ordered to calculate the Environmental Compensation against the unit as per the Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund. The calculation of Environmental Compensation is as follows:

## CALCULATION OF ENVIRONMENTAL COMPENSATION OF

**M/S SHAH SPONGE & POWER LTD., MOUZA - JURI/BARASAI, PS - JURI, DIST - E. SINGHBHUM.**

Nature of violation – Non compliance of CTO conditions

Basis to levy the Environmental Compensation – Pollution Index

The environmental compensation is based on the following formula:

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

Where,

- EC- Environmental compensation
- PI- Pollution Index of Industrial Sector
- N –Number of days of violation took place
- R – A factor in rupees for EC
- S- Factor of scale of operation
- LF – Location Factor

Now in this case,

PI is to be taken as 90 as the industry belongs to Red category (Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units) (as per CPCB's guidelines).

N is to be taken as 938 days (from 24/09/2019 to 18/04/2022).

R is to be taken as 250 (as per CPCB's guidelines).

S is to be taken 1.5 as the unit belongs to Large Scale as per Notification No. - S.O. 1702(E) – dated 01/06/2020 of Ministry of Micro, Small and Medium Enterprises (S could be 0.5 for micro or small, 1.0 for medium and 1.5 for large units as per CPCB Guidelines).

LF is to be taken as 1.25 as the population of E. Singhbhum is > 1 million. (District Census Handbook, E. Singhbhum of 2011).

Therefore,

$$\begin{aligned} EC \text{ (Per day)} &= PI \times R \times S \times LF \\ &= 90 \times 250 \times 1.5 \times 1.25 \\ &= ₹ 42,187.50/- \end{aligned}$$

Henceforth, the Environmental Compensation for one day comes out to be ₹ 42,187.50/-. So the total Environmental Compensation for 938 days comes out to be **₹ 3,95,71,875.00/- (i.e. Three Crores Ninety Five Lakhs Seventy One Thousand Eight Hundred and Seventy Five Rupees Only)**.

Whereas, you have been vide this office letter Ref. B-1828 dated 08.09.2022 and Ref. B-2094 dated 29.09.2022 were directed to deposit the Environmental Compensation of **₹ 3,95,71,875.00/- (i.e. Three Crores Ninety Five Lakhs Seventy One Thousand Eight Hundred and Seventy Five Rupees Only)** within 07 days of issuance of this letter.

Whereas, unit vide dated 14.09.2022 has submitted reply of 2<sup>nd</sup> show cause for non-submission of Environmental Compensation.

Whereas, unit was asked show cause vide this office Ref. No. B-2094 dated 29.09.2022 for non-submission of Environmental Compensation.



Whereas, unit vide its letter dated 30.09.2022 has requested for re-consideration of JSPCB order dated 26.05.2022 and show cause dated 08.09.2022.

Whereas, inspection report was sought from the Regional officer, Regional office-cum- Laboratory, JSPC Board, Jamshedpur vide Ref. No. B-2225 dated 14.10.2022 in the light of reply submitted by the unit.

Whereas, Regional officer, Regional office -cum- Laboratory, JSPC Board, Jamshedpur vide Ref. No. 721 dated 02.11.2022 has submitted the verification report in the light of show cause direction. The details of which is as follows:

Sl. No.	Observation by the committee	Verification report
1.	That, exceedance of Sox	During inspection, Data of SO <sub>x</sub> , No <sub>x</sub> and PM not found transmitted to JSPC Board, Server from 2 x 100 TPD Sponge Iron Plant. It was informed that due to thundering, some technical issues has been occurred. However, from 31.10.2022, data is found being transmitted to JSPCB Board, server. The value of Sox, No <sub>x</sub> and PM is found within prescribed limit. Mother Board sensor card of stack attached with power plant has been burnt out due to thundering. Hence, data not being transmitted from the stack attached with the power plant.
2.	That, leakage from the kiln feeding and discharge to cooler.	Leakage from kiln feeding has been in control. Leakage from cooler discharge has also found under control. However, it is necessary to changes the torn out bags immediately when, it is noticed.
3.	That, Leakage from the kiln cap.	Leakage from kiln cap. Of rotary kiln 3 & 4 found. The unit representative informed that due to leakage in Boiler of WHRB the emergency cap has been opened to maintain the pressure in rotary kiln.
4.	That, sufficient green belt not developed.	The unit representative informed that about 500 No. of trees has been planted in last three months. But still there is need of more plantations. Unit representative informed that tree plantation is continued and more plantation will be done near future.

Whereas, in the light of observations made during the verification, directions were issued to unit vide Board's Ref. No. B-2411 dated 22.11.2022 to submit the compliance(s) of the following:

- (1) Data of Sox, No<sub>x</sub> and PM not found transmitted to JSPC Board server from 2x 100 TPD sponge Iron Plant.
- (2) Torn out bags has to be removed to prevent leakage from kiln feeding and cooler discharge.
- (3) Leakage from Kiln cap of rotary Kiln 3 & 4 was found;
- (4) More tree plantation is required.

Whereas, inspection report was sought from Regional officer, Regional office -cum- Laboratory, JSPC Board Jamshedpur vide Ref. No. B-2633 dated 19.12.2022 in the light of reply submitted by the unit.

Whereas, Regional officer, Regional office -cum- Laboratory, JSPC Board, Jamshedpur vide Ref. No. 1190 dated 29.12.2022 has submitted the verification report. The details of which is as follows:

SN.	Observation	Verification report
1.	Data of Sox, Nox and PM not Found transmitted to JSPC Board Server from 2 x 100 TPD Sponge Iron Plant.	During inspection 2 x 100 TPD rotary kiln and power plant found in operation. Online continuous monitoring system for stack monitoring attached with ESP was also found in operation. Data attached at Annex-I.
2.	Torn out bags has to be removed to prevent leakage from kiln feeding and cooler discharge.	Leakage from kiln feeding has been in control. Leakage from cooler discharge has also controlled. The unit has changed the torn out bags. Purchase copy of bags of bag filter is herewith attached at Annex-II.
3.	Leakage from kiln cap of rotary kiln was found.	Leakage from kiln cap has been controlled. The unit representative informed that cast able of kiln cap got damaged due to opening/closing of the cap to maintain pressure in kiln. They regularly repair the damaged constables.
4.	More tree plantation is required.	The plantation along the boundary wall found. The unit representative informed that by March, 2023 they have planned to do tree plantation in 3.5 Acres and by March, 2024 It will be in another 2.2 Acres of land. Altogether 5500 trees will be planted outside the premises in own land. In last three months they have planted 500 No. of trees. It is necessary to take measures for good survival rate of plants.

Whereas, you have been issued direction for submission of Environmental Compensation under section 33(A) of the Water (Prevention & Control of Pollution) Act, 1974 and under section 31(A) of the Air (Prevention & Control of Pollution) Act, 1981, vide this office Memo No. B-488 dated 10.03.2023.

Whereas, in light of the direction issued by the Board the unit has submitted its representation to the Board vide its letter dated 16.03.2023.

Whereas, the unit was issued Final Direction for submission of Environmental Compensation under section 33(A) of the Water (Prevention & Control of Pollution) Act, 1974 and under section 31(A) of the Air (Prevention & Control of Pollution) Act, 1981, vide this office Memo No. B-1264 dated 10.05.2023.

Whereas, in light of the direction issued by the Board the unit has submitted its representation to the Board vide its letter dated 23.05.2023.

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Whereas, in regard to the Environmental Compensation of Rs. 3,95,71,875.00/- (Rupees Three Crores Ninety-Five Lacs Seventy-One Thousand Eight Hundred and Seventy-Five only) levied on Company, unit submitted reply as:

That we have previously replied to your letter bearing memo no B-488 dated 10.03.2023 via our letter dated 16.03.2023 wherein we have appreciated the fact that the Action Taken Report signed and submitted by your good self, states a positive review of our plant. Para 8 of the said report reads as:

*“the abovementioned Inspection Report submitted by the Regional Officer, JSPC Board, Jamshedpur shows that the recommendation of the Committee constituted by the Hon’ble NGT has been complied. In light of the above the Hon’ble Tribunal may be pleased to dispose of the matter.”*

That your good self may kindly apprise the fact wherein the Hon’ble NGT consisted a committee which consisted of members **from CPCB, State PCB, Regional Office of MoEF & CC and DM- East Singhbhum and wherein the State PCB acted as the nodal agency** as per the said order of the Hon’ble NGT. The complainant was unable to prove anything before the said committee which was alleged by him against our Company during the site inspection. The committee in its Inspection Report which was addressed to your good self by Regional Officer, JSPCB vide Letter ref no. 328 dated 25.04.2022 has stated after its observations in pg 4 as under:

“During visit, the committee members also interacted with the applicant/Petitioner Mr. Jairam Hansda. The applicant mentioned in the Letter/ Application that area upto 3-5 km radius around the Plant Premises is affected by Water/ Air Pollution due to Plant operation. Accordingly, Mr J Hansda was requested to show the affected area, water body etc and Medical history/ treatment of affected persons due to pollution from Plant operation. The Applicant requested Committee Members for site visit around the Plant premises. Accordingly, the Members including Plant Officials visited nearby Water Bodies (2 Nos.) located at SAMARSAHI Village (South side of the Plant). During visit, as observed local populace were using Pond water for bathing, washing etc. The committee members also interacted with Local/ Villagers (Smt Savita Manna, Mr Khokon Bhumij, Mr Umapada Pramanik, Mr Santosh Madina, Mr Ramapada Pramanik, Mr Raja Pramanik) and as they informed, they are not suffering from any disease (like TB, Asthma etc) as alleged by the Applicant. Significant amount of black dust was observed on leaves of trees upto 200 mtr, then less amount of black dust deposition on leaves was observed at further distance of 200 mtr, in wind direction. **The Applicant could not describe**



**about the Fishery business affected due to pollution from the Plant operation which he mentioned in the Application. Further Mr Jairam Hansda could not show the Affected Place/ Affected people due to pollution from Plant operation as claimed in his application to Honourable NGT."**

That the latest inspection of our unit carried by inspection committee formed by the office of **General Manager, District Industry Centre (DIC), Chaibasa** and **informed to us via letter no. 129 dated 18.03.2023** also gives a positive review of our plant by stating compliance of all the previous findings which is stated as under:

1. इकाई द्वारा SOX, NOX एवं PM उत्सर्जन के अनुवीक्षण हेतु 02 (दो) स्टेक मॉनिटरिंग यंत्र स्थापित किये गए हैं, जिनके द्वारा हवा में SOX NOX एवं PM के स्तर की अणुवीक्षा की जा रही है। दोनों स्टेक मॉनिटरिंग यंत्र कार्यरत पाए गए। SOX, NOX एवं PM के स्तर निर्धारित सीमा के नीचे पाए गए
2. दोनों स्टेक मॉनिटरिंग यंत्र द्वारा दर्ज प्रदूषण के आकड़े झारखण्ड राज्य प्रदूषण नियंत्रण, रांची के सर्वर पर सीधा प्रसारित किये जा रहे हैं।
3. DRI (Direct Reduced Induction) Plant के **Rotary Kiln Cap** ढके हुए पाए गए।
4. इकाई में अनेक वाटर स्पिंकलर लगे पाए गए एवं पाइप से पानी का छिड़काव भी किया जा रहा था।
5. इकाई प्रतिनिधि द्वारा जानकारी दी गयी कि दो भूखंड, जो इकाई की अपनी भूमि है, को वृक्षारोपण हेतु विहित किया गया है। इनमें से एक भू-खंड जो लगभग 3 एकड़ का है, उसमें वृक्षारोपण का कार्य प्रारम्भ हो चुका है एवं लगभग 400-500 वृक्षों को लगाया जा चुका है। दूसरे भू-खंड में, जो लगभग 2.5 एकड़ का है, उसमें शेष वृक्ष वर्षा ऋतु में लगाने का संकल्प है, ताकि सही मौसम में वृक्ष पनप सकें।"

That it is pertinent to mention herewith that we have also submitted a letter to the **District Forest Officer (DFO), Jamshedpur Division** wherein we have informed about the 4000 number of trees planted during the FY 2022-23 and have also **committed to plant 5000 number of trees** within a period of three months from June, 2023 **under their guidance and supervision at our plant site, the cost of which has also been proposed to be incurred by us.** The plant saplings have already been purchased and kept in our nursery.

In light of the aforesaid submissions it can be seen that the reports mentioned herewith, gives a positive review of our plant. Furthermore your good self may kindly note that as highlighted above, the first inspection report by the Joint Committee also mentioned of the fact that the applicant was unable to prove the allegations made against our Company to Hon'ble NGT. Therefore it is our humble request to kindly waive off the environmental compensation levied on our Company which has arisen due to the **false allegations made against our Company by a single individual for his personal benefits and has already been recommended for disposal by your good self to the Hon'ble NGT.**

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Whereas, your reply was analyzed and it was found that as the EC was imposed for the past violation, so it is not feasible to waive off the Environmental Compensation as required by you.

Whereas, till date no Environmental Compensation has been received by the Board.

Now, therefore, on the basis of above mentioned facts, the competent authority by exercising the power conferred under section 33(A) of the Water (Prevention & Control of Pollution) Act, 1974 and under section 31(A) of the Air (Prevention & Control of Pollution) Act, 1981, directs that a revised amount of Environmental Compensation will have to be paid by the unit amounting to INR 3,95,71,875 + 12% interest per annum from dated 10.03.2023 is to be deposited to the Board within 30 days of the receipt of this letter otherwise closure order may be issued / legal action may be initiated.

This issues with approval of the competent authority.

Yours faithfully,

Sd/-  
(Y. K. Das)  
Member Secretary

Memo No. B-1793.....

Ranchi, dated 18/07/2023.....

Copy to: Regional Officer, Regional Office, JSPC Board, Jamshedpur for information & necessary action. You are directed to deliver the letter to the unit from your level & ensure the compliance and report to this office immediately.

(Y. K. Das)  
Member Secretary



**JHARKHAND STATE POLLUTION CONTROL BOARD**  
 REGIONAL OFFICE-CUM-LABORATORY, MB/15 NEW HOUSING COLONY  
 ADITYAPUR, JAMSHEDPUR.

Web Site- [jspcb.org](http://jspcb.org)/ Phone- 0657-2383241/ Fax- 0657-2383905

**Compliance status of observation made by Joint committee during visit of M/s Shah Sponge & Power Ltd, At- Juri, P.O.- Hata, Dist- East Singhbhum in the matter of Hon'ble NGT, Principal Bench, New Delhi O.A. No.- 390/2021 (Jairam Hansda Vs State of Jharkhand)**

Inspection of the aforesaid unit has been carried out by Regional Officer & Sample Taker on 18.07.2023. The unit representative Sri Sumit Sah, Director & Sri Arun Kr. Sinha, D.G.M, Corporate affair were present during inspection.

Status of compliance in light of committee observation made during visit on 18.04.2022 is as follows :-

Sl. No.	Observation	Status of compliance
1.	Data of Sox, NOx and PM not Found transmitted to JSPCB Board Server from 2 x 100 TPD Sponge Iron Plant.	During inspection 2 x 100 TPD rotary kiln was found in operation. ESP attached with rotary kiln was in operation AFBC Boiler based power plant was also in operation. ESP with the boiler also found in operation. Online continuous monitoring system available for continuous monitoring of stack emission for each stack attached with rotary kiln and power plant. Value of PM, Sox & Nox found within permissible limit. (Copy attached).
2.	Torn out bags has to be removed to prevent leakage from kiln feeding and cooler discharge.	Leakage from kiln feeding and cooler discharge found in control.
3.	Leakage from kiln cap of rotary kiln was found.	Leakage from kiln cap found in control. The unit representative present during inspection, was directed to take regular repair works whenever castables of cap got damaged.
4.	More tree plantation is required.	Plantation has been done in 7.5 Acre of land inside the plant & outside the plant in own land. It was informed that Total 10915 No. of plants has been planted upto 15.07.2023. It has brought 5000 Nos. of trees in which 2200 has been planted. Unit representative informed that daily 60 Nos. of trees being planted as the land is rocky in nature. Photograph of plantation taken during inspection is herewith attached. The unit has 4 existing recharge pit for R.W.H. and another 6 in construction stage It has also one pond within the premises for storing rain water. Another outside the premises in own land is under construction.

GRANTED BY JSPCB, RANCHI REF. NO. JSPCB/HO/RNC/CTO5551325/2019/1919, dt- 24.09.2019

Sl.	CONDITION	STATUS
<b>B</b>	<b>Specific Conditions</b>	<b>Compliance</b>
i)	That, the occupier shall raise the height of all stacks attached with	Complied.

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	air pollution control devices (APCD) up to 30 metre within 4 months.	
ii)	That, the occupier shall comply fugitive emission standards of 2000 g/m <sup>3</sup> at a distance of 10 meter from raw material crusher and product handling areas etc.	Test report submitted.
iii)	That, the occupier shall provide separate electricity meter and totaliser for continuous recording of power consumption with all APCD. A logbook shall be maintained for recording of daily meterage of electricity meter connected to all APCDs. The amperage of the ID fan shall also be recorded continuously. Non functioning of APCD shall be recorded in the same logbook along with reasons for non-operation of the Pollution Control Equipment.	Separate electricity meter installed.
iv)	That, the safety cap/emergency stack of rotary kiln type plant, which is generally installed above the after burner chamber (ABC) of feed end column should not be used for discharging untreated emission, bypassing the air pollution control device.	During inspection cap. Found closed.
v)	That, the occupier shall provide software controlled interlocking facility keeping in view of on-linen emission and effluent monitoring system to ensure stoppage of feed conveyor, so that the feed to the kiln would stop automatically, if emergency/safety cap of the rotary kiln is opened or ESP is non - operational.	Interlocking system installed.
vi)	That, the occupier shall install mechanically operated fitted with water mixing (spiral pug mill) system for timely collection and removal of the flue dust generated in ESP or at any other pollution control devices for control of fugitive emission at the dust collection system.	Spiral pug mill installed.
vii)	That, the occupier shall install Atmospheric Fluidized Bed Combustion (AFBC) Boilers for generation of power with use of char within 02 years.	Complied.
viii)	That, the occupier shall maintain logbook for daily record of Char production and its usage. The record shall be made available to officials of JSPCB during inspection of the plant	Complied.
ix)	That, the occupier shall maintain logbook for daily record of Char production and its usage. The record shall be made available to officials of JSPCB during inspection of the plant	Complied.
x)	That, the occupier shall make the approach road and roads within premises of the plant and work areas asphalted or concreted.	Approach road concreted.
xi)	That, the occupier shall construct the shed within 04 months for keeping Iron Ore properly and ensure Crushing and screening operation in shaded enclosed area.	Coal crusher & Iron Ore crushed kept under shed.
xii)	That, the occupier shall make water sprinkling arrangement in areas around crushing and screening units, raw material heaps at unloading points, heavy vehicle movement areas, roads and waste dump sites etc.	Complied.
xiii)	That, the occupier shall have its conveyor belt for transporting the materials fully covered all along its way and transfer points of conveyor belt should also be covered and suction system should be connected to de-dusting equipment.	Conveyor belt covered.
xiv)	That, the occupier shall make extensive plantation of three tier all along the roads and boundary wall of the industry	Total 10915 No. of trees planted.

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xv)	That, the occupier shall, use the fly ash generated from AFBC boiler as per notification released by MoEF & CC, New Delhi "Fly Ash Notification" dated 14th September, 1999 and as amended on 25th, January, 2016.	Fly ash brick plant installed inside the premises.
xvi)	That, the occupier shall in no case dispose of the solid waste including fly ash and bottom ash on any agricultural land and keep it within the plant premises. The occupier having plant capacity less than 200 TPD shall look for disposal of char in AFBC boiler of other plant. All the solid wastes shall be kept fully covered with wire mesh or soil coating. Different types of solid wastes generated shall be stored separately as per the guidelines of CPCB to avoid adverse effect on air quality and water region.	Char used in AFBC plant.
xvii)	That, the occupier shall make arrangement for operation of the plant in such a way that all pollution control devices shall start before start of conveyor belt/plant operation and similarly all pollution control devices shall be put off only after stopping the operation of the plant.	Agreed.
xviii)	That, the occupier shall install and operate the on-line emission monitoring system uninterruptedly.	Online monitoring system installed
xix.	That, the occupier shall install Closed Circuit Television (CCTV) camera for monitoring of operational status of APCDs for observations of the same as and when required.	CCTV camera installed.
Xx.	That, the occupier shall submit compliance of conditions of CTO half yearly to the Board.	Submitted.
Xxi	. That, the occupier shall maintain zero trade effluent discharge and install a web cam at each outlets of the drain.	Complied.
xxii)	That, the occupier shall construct garland drain, toe wall and settling tanks for storage of solid wastes and raw materials separately and de-siltation of settling tanks shall be done regularly.	Coal & Iron Ore kept under shed.
xiii)	That, the occupier shall comply all of the conditions as mentioned in affidavit within the stipulated timeline and submit the report to the Board	Agreed.
xxiv)	That, the occupier shall submit applications for renewal of consent under section 25 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent i.e. 30.06.2024 with documents showing compliance of all of the above conditions.	CTO valid upto 30.06.2024.
A	<b>GENERAL CONDITIONS:</b>	
i)	That, the occupier shall maintain the National Ambient Air Quality Standard given below: Note : Serial no. 1 to 4 – Mandatory Serial no. 5 to 12 As applicable for specific type of industry.	Complied.
ii)	That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:	Complied.
iii)	That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:	Complied.
iv)	That, the occupier shall dispose of solid wastes as follows:	Complied.
v)	That, the occupier shall keep D G Set(s) within acoustic enclosure	Complied.

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	and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.	
vi)	That, the occupier shall install and maintain Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.	4 Nos. RWH pit already constructed and six nos. RWH pit is under construction.
vii)	That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.	10915 Nos. trees planted.
viii)	That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.	Complied.
ix)	That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited / ISO 9001:2008 and OHSAS 18001:2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.	Submitted.
x)	That, this CTO is valid subjected to the validity of mining Lease/Mining Plan/Ecofriendly/Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.	N.A.
xi)	That, this CTO is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the timebeing in force, rests with the industry/ unit/ occupier.	Agreed.
xii)	That, this CTO shall not in any way, adversely affect or jeopardize the legal proceeding , if any, instituted in the past or that could be , instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.	Agreed.
Xiii)	That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules made there under.	Assure to comply.

**Compliance of Environmental Clearance granted by Moef, New Delhi vide No.J-11011/891/ 2007-IA-II(I) Dt.18.06.2010.**

Sl	Specific Condition	Compliance Status
A		
i)	Efforts shall be made to reduce RSPM levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic Precipitator (ESP), cyclone and bag filters etc. shall be provided to keep the emission level below 50 mg/NM3 by installing energy efficient technology. At no time the emission level shall go	Online monitoring system installed. ESP installed with DRI Kiln & AFBC boiler. Bag filter also installed.

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	beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case of emission level exceeds the limit.	
ii)	In plant control measures for checking fugitive emissions from all the vulnerable sources like spillage, raw materials handling etc. shall be provided. Further specific measures like provision of dust suppression system consisting of water sprinkling, suction hoods, fans and bag filters etc. shall be installed at material transfer points, stock house and other enclosed raw material handling areas. All the internal roads shall be asphalted. Fugitive emissions shall be regularly monitored and maintained.	Water sprinkler and bag filter installed at materials transfer point. Stock house, pH, C.D. Pucca road made and fixed type sprinkler installed.
iii)	Vehicular pollution due to transportation of raw material and finished product shall controlled. Proper arrangement shall also be made to control dust emission during loading and unloading of raw material and finished products. Efforts shall also be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in the closed containers only and shall not be overloaded. Vehicular emissions shall be regularly monitored and record kept.	Water spraying regularly done to control dust emission. Assure to control vehicular emission.
iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 <sup>th</sup> November, 2009 shall be followed.	Being maintained.
v)	Secondary fugitive emission from all the sources should be controlled as per Ministry vide G.S.R. 414(E) dated 30 <sup>th</sup> May, 2008 within the latest permissible limits issued by the Ministry and regular monitored. Guidelines / Code of practice issued by the CPCB should be followed.	All conveyor belt covered from GI Sheet. Waster sprinkler also installed.
vi)	Hot gases from DRI kiln shall be passed through Dust setting chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in waste heat recovery boiler (WHRB). The gas then shall be cleaned in ESP before leaving out into the atmosphere through ID fan and stack.	Complied.
vii)	The water consumption shall not exceed as per the standards prescribed for the steel plant.	Complied.
viii)	Total ground water requirement shall not exceed 1020m <sup>3</sup> /day although permission for drawl of 3600m <sup>3</sup> /day ground water is obtained from Central Ground Water Authority, Ministry of Water Resources vide letter no. SSPL/GW/01/08-09 dated 8 <sup>th</sup> November 2008.	Assure to comply.
ix)	Zero effluent discharge shall be strictly followed and no waste water shall be discharged outside the premises.	Complied.
x)	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	4 Nos. Rain water harvesting pit constructed and 6 Nos. of pit is under construction.
xi)	Regular monitoring of effluents and effluents surface , sub-surface and ground water shall be ensured and treated waste water shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act which ever are more stringent. Leach ate study for the effluent generated and analysis shall also be regularly carried out and report submitted to Ministry's Regional office at Bhubaneswar, SPCB and CPCB.	At the time of inspection no effluent discharge found outside the premises.

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xii)	All the char from DRI plant shall be utilized in AFBC boiler of Power Plant and no char shall be disposed off anywhere else. AFBC boiler shall be installed simultaneous along with the DRI plant to ensure full utilization of char from the beginning. All the B.F. slag be properly utilized.	Complied.
xiii)	Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1989 and subsequent amendment in 2003 and 2010. The fly ash shall be provided to the cement and bricks manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's regional office Bhubaneswar.	Fly ash supplied to cement plant and fly ash bricks plant.
xiv)	Permission recommendation from the State Forest Department shall be taken regarding likely impact of the expansion of the proposed steel plant on the reserve forest. Measures shall be taken to prevent impact of particulate emission/fugitive emissions, if any from the proposed plant on the surrounding reserve forest viz Dholadih P.F., MorchgoraKudadaP.F.Nundup P.F., Jojodih P.F. and Tiring P.F. located within 10 KM radius of the project. Further Conservation Plan for the conversation of wild funa in consultation with the State Forest Department should be prepared and implemented.	Assure to comply.
xv)	Recommendation made in the Chapter on Corporate Responsibility for Environment Protection (CREP) for the steel plant shall be implemented.	Being complied.
xvi)	All the commitment made to the public during the public hearing /public consultation meeting held on 14 <sup>th</sup> March 2009 shall be satisfactorily implemented and a separate budget for implementing the s same shall be allocated and information submitted to the Ministry's regional office at Bhubaneshwar.	Budget allotted for CSR.
xvii)	At least 5% of the total cost of the project shall be earmarked towards the Corporate Social Responsibility and item-wise details along with time bounded action plan should be prepared and submitted to the Ministry's regional office at Bhubneshwar. Implementation of such programs should be ensured accordingly in a time bound manner.	Assure to comply.
xviii)	Risk and Disaster management plan along with the mitigation measure shall be prepared and a copy of the same submitted to the Ministry's regional office Bhubaneshwar, SPCB and CPCB within three months of issue of Environment Clearance letter.	Onsite & off site emergency plan approved by inspector of factory.
xix)	As proposed, Green Belt shall be developed in 11.20 Acres out of total 33 Acres within and around the plant premises to mitigate the effect of Air Emissions as per the CPCB guidelines in consultation with DFO.	Green belt developed 10915 trees planted.
xx)	The company shall provide housing for construction labour within the site with all necessary infrastructure and facility such as fuel for cooking, mobile toilet, mobile STP, safe drinking water, medical healthcare, crech etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Only few worker are from nearby villages. Construction work is over.
B	GENERAL CONDITION	
i)	This project authority must strictly adhere to the stipulation made by the Jharkhand State Pollution Control Board and the State Government.	Assure to comply.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forest.	Assure to comply.
iii)	The gaseous emissions from the various process units shall confirm to the load/mass based standards notified by the ministry 19 <sup>th</sup> May, 1993 and standards prescribed from time to time. The state board may specify	SMR, AAQR & Noise level report being submitted regularly.

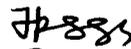
	more stringent standards for the relevant parameters in view of the nature of industry and its size and location.	
iv)	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO2 and NOX are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to the Ministry including its Regional Office Bhubaneswar and the SPCM/CPCB once in six month.	AAQ, Stack monitoring report through online continuous monitoring attached.
v)	Industrial waste water shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. The treated waste water shall be utilized for plantation purpose.	Industrial cooling water recycled. Surface runoff collected in pond which is used in dust suppression.
vi)	The overall noise levels in and around the plant area shall be kept well within the prescribed standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (day time) and 70 dBA (night time).	AAQR submitted regularly.
vii)	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Complied.
viii)	The company shall develop surface water harvesting structures to harvest the rain water for utilization in lean season besides recharging the ground water table.	Complied.
xi)	The project proponent shall also comply with all the environmental protection measures and safe guard recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health-care etc.	Being complied.
x)	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The fund so provided shall not be diverted for any other purpose.	Being complied.
xi)	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, were received while processing the proposal. The clearance letter shall also be out on the website of the company by the proponent.	Complied.
xii)	The project proponent shall upload the status of the compliances of the stipulated environment clearance conditions, including result of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bhubaneswar, the respective zonal office of the CPCB and JSPCB. The criteria pollutants levels namely, PM10, SO2, NOX (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied.

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xiii)	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including result of monitored data (both in hard copy as well as by e-mail) to the regional office of the MOEF, the respective zonal office of CPCB and SPCB. The Regional Office of this Ministry at Bhubaneshwar/CPCB/SPCB shall monitor the stipulated conditions.	Six monthly compliance report submitted.
xiv)	The Environmental Statement for each financial year ending 31 <sup>st</sup> March in Form – V as is mandated to be submitted by the project proponent to concerned State Pollution Control Board as prescribed under the Environmental ( Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of the compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bhubaneshwar by e-mail.	Complied.
xv)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and the copies of the clearance letter are available with the SPCB and also be seen at Website of Ministry of Environment and Forest at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional Office at Bhubaneshwar.	Complied.
xvi)	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Compliance submitted.

This is for information and necessary action.

  
 18-07-2023  
 (S.A. Khan)  
 S.T.

  
 18-07-2023  
 (Regional Officer)  
 Jamshedpur.

Memo No.- .....715..... Jamshedpur, dated .....18-7-2023.....  
 Copy to :- The Member Secretary, Jharkhand State Pollution Control Board, Ranchi for information and necessary action.

**Encl :- As above.**

  
 18-07-2023  
 (Regional officer)  
 Jamshedpur.

**VASTHI ENVIRO**

Industry: M/s Shah Sponge and Power Ltd,  
 Industry Code: 08JH143  
 Industry Category: Iron & Steel  
 Industry Type: Emission  
 Station : Office\_Site  
 Jamshedpur, Jharkhand

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Village- Juri, PO.- Hata, PS. - Potka, District - East Singhbhum, Jharkhand, Jamshedpur, Jharkhand-831002

	Stack_1_Sponge_Iron2x100TPD(PM)	Stack_1_Sponge_Iron2x100TPD(NOX)	Stack_1_Sponge_Iron2x100TPD(SO2)	Stack_2_PigIron_120_Captive_Power_Plant_08MW(PM)	Stack_2_PigIron_120_Captive_Power_Plant_08MW(SO2)	Office_Site(PM10)
<b>Range</b>	0-1000	0-2000	0-2000	0-1000	0-1000	0-1000
<b>Unit</b>	mg/Nm3	mg/Nm3	mg/Nm3	mg/Nm3	mg/Nm3	µg/m3
<b>Limit</b>	150	-NA-	-NA-	150	-NA-	-NA-
<b>Min</b>	41.05	43.93	17.31	21.83	43.51	0.47
<b>Max</b>	64.33	71.48	32.68	34.87	66.04	10.76
<b>Avg</b>	49.35	52.85	24.61	27.03	57.11	4.31

SL	Datetime	Stack_1_Sponge_Iron2x100TPD(PM)	Stack_1_Sponge_Iron2x100TPD(NOX)	Stack_1_Sponge_Iron2x100TPD(SO2)	Stack_2_PigIron_120_Captive_Power_Plant_08MW(PM)	Stack_2_PigIron_120_Captive_Power_Plant_08MW(SO2)	Office_Site(PM10)
1	2023-07-18 10:15:00	56.839	43.93	24.174	25.587	55.873	10.757
2	2023-07-18 10:30:00	52.684	49.296	17.307	24.687	58.12	9.825
3	2023-07-18 10:45:00	44.257	71.481	30.037	30.933	58.393	9.682
4	2023-07-18 11:00:00	41.049	52.577	30.827	34.867	59.373	9.682
5	2023-07-18 11:15:00	43.537	55.147	22.431	28.987	59.8	9.682
6	2023-07-18 11:30:00	42.859	58.615	23.877	25.52	58.38	2.965
7	2023-07-18 11:45:00	50.643	52.807	21.656	26.947	57.18	0.522
8	2023-07-18 12:00:00	51.141	45.477	22.695	27.727	55.007	0.522
9	2023-07-18 12:15:00	64.325	51.991	27.28	27.18	43.507	0.522
10	2023-07-18 12:30:00	51.854	51.951	32.684	21.827	55.673	0.484
11	2023-07-18 12:45:00	50.621	45.807	18.052	26.26	63.987	0.47
12	2023-07-18 13:00:00	44.799	54.145	25.179	25.127	66.04	0.47
13	2023-07-18 13:15:00	46.938	53.78	23.757	25.74	51.06	0.47

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