

BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 122 of 2000 of 2015 (WZ)

[EARLIER OA No. 165 of 2020 (PB)]

**AND IN THE MATTER OF**

Samita Rajendra Patil ...Applicant

versus

Jindal Steel Works Ltd and ors ...Respondent

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# 2748

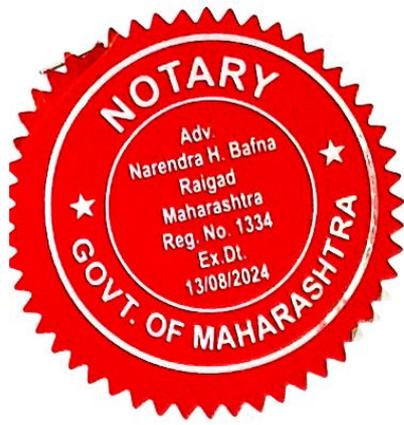
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Mumbai

28-02-2024

Adv Shriram S Kulkarni

Advocate for the Applicant



BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 122 of 2000 of 2015 (WZ)

[EARLIER OA No. 165 of 2020 (PB)]

**AND IN THE MATTER OF**

Samita Rajendra Patil ...Applicant

versus

Jindal Steel Works Ltd and ors ...Respondent

**ADDITIONAL AFFIDAVIT OF SUBSEQUENT EVENTS:-**

I, Samita Rajendra Patil, age: 43 Years , applicant abovenamed  
do state on solemn affirmation as under:

1. This hon'ble tribunal has appointed the committee and its report on 27/05/2021 and the said committee has submitted the interim report on 21/01/2021 and final report in 30/01/2023. It is also matter of record that after the interim report I had raised an objection showing as to how the interim report was manipulated by the company. This Hon'ble tribunal had taken the note of the said objection and asked the committee to submit its report.

Thereafter, final report is received from the committee. I have filed detailed affidavit, objection, suggestion to the report vide affidavit dated 28/03/2023.

2. So far air pollution is concerned the committee has taken the reading for only one day and given the report. I had already taken an objection to the same mentioning that previous actions of MPCB are not considered at all.
3. I had submitted an application under RTI on 06/11/2023 seeking the entire file in respect of action taken by MPCB in respect of EC, compliance report, non-compliance report, notices.
4. On 20/12/2023 the MPCB has supplied the information. The MPCB supplied copies of show cause notices and replies given by the company. On 16/09/2020 the MPCB found that the Annual report of 2019 and 2020 submitted online shows that the Generation and disposal of hazardous waste is NIL in financial year 2019-2020. Hereto annexed and marked as **Exhibit-A** is a copy the show cause notice dated 16/09/2020.
5. On 21/09/2020 JSW Steel Limited replied to the Show Cause notice giving the details of mode of disposal and stated that Coke oven plant II is a new plant and no hazardous wastes generated for the period 2019-2020. Hereto annexed and marked as **Exhibit-B** is a copy reply dated 21/09/2020.



6. Thereafter on 30/03/2021 in the show cause notice the MPCB questioning the renewal of consent to operate RMC plant and as to why it should not be refused under the provisions of Water (P & CP) Act 1974 and Air (P & CP) Act 1981 and also why further legal action shall not be initiated under the provisions of the act against the company. This show cause notice was issued on the ground that JSW Steel has not provided adequate air pollution control system to the RMC plant. Hereto annexed and marked as **Exhibit-C** is a copy of show cause notice dated 30/03/2021.
7. On 04/08/2021, the MPCB received a complaint from Mr. Kailash Anerao and the MPCB issued show cause notice on the grounds that toxic coal flyash was deposited alongside of Mumbai Goa highway on rice fields and water samples collected from the said land shows PH level was increased & soil became infertile. Hereto annexed and marked as **Exhibit-D** is a copy of show cause notice dated 04/08/2021.
8. On 07/08/2021 respondent company replied to the notice dated 04/08/2021 & contested the claim. Hereto annexed and marked as **Exhibit-E** is a copy of reply dated 07/08/2021 along with its annexures.



9. It is pertinent to note that MPCB has informed that the matter is sub-judiced before the NGT and therefore no action is taking except the show cause notice dated 14/02/2022. I was supplied these documents under RTI Act on 16/02/2024. Thus, it is pertinent to note that MPCB is not taking action because my case is pending before this tribunal. Hereto annexed and marked as **Exhibit-F** is a copy reply to Shri Kailash Aneroa

10.01/02/2022, On receipt of complaint dated 29/01/2022 the MPCB found that respondent company has sold recyclable hazardous to M/s Amirullah & Bros. who was not possessing valid consent of the board under H&OW rule, 2016. Similarly, M/s Azizya Enterprise also are vendors to whom company sold hazardous waste who was in possession of the valid consent but not having valid authorization under H&OW rules, 2016. Hereto annexed and marked as **Exhibit-G** is a copy of Show Cause Notice dated 01/02/2022.

11. On 07/02/2022 the company gave a reply. The reply does not show that M/s Amirullah & Bros. is possessing a valid consent and authorization. The reply does not show that M/s Azizya Enterprise is possessing any authorization under H&OW rule, 2016. Hereto annexed and marked as **Exhibit-H** is a copy of reply dated 07/02/2022.



12. Therefore, MPCB was required to take the show cause notice to its logical end but failed to take any action against the company and also did not bring it to the notice of the committee appointed by the tribunal.
13. On a complaint, MPCB visited the site on 29/01/2022 and found that company has discharged chemical waste and sand dredging in Dharamtar Creek which had impact on fishing activity. It found serious non-compliance and issued show cause notice on 11/02/2022. Hereto annexed and marked as **Exhibit-I** is a copy of is a copy the show cause notice dated 11/02/2022.
14. On 17/02/2022 the respondent company assured the MPCB that in future they will take precautionary steps to control air and water pollution. Hereto annexed and marked as **Exhibit-J** is a copy of reply dated 17/02/2022.
15. On 18/11/2022 the MPCB and CPCB jointly carried out monitoring of air quality, stack monitoring, fugitive emissions Monitoring and effluent water sampling on 04/05/2022 and 05/05/22 and MPCB issued show cause notice on 18/11/2022. It shows that parameters of PM10 level at 3 locations was exceeded, water sample was collected at 3 locations where BOD 38mg/l and TDS 2384 mg/l exceeded etc., completely evasive reply is given, and analysis report also shows the violation still



# 2754

MPCB has not take any action except issuing show cause notice. The MPCB has supplied copies of analysis report Air (ambient) At different location which is a subject matter of notice along with reply. Hereto annexed and marked as **Exhibit-K** is a copy of the show cause notice dated 18/11/2022. Hereto annexed and marked as **Exhibit-L** is a copy of report of MPCB

16. On 23/11/2022 the respondent company submitted reply that they are complying with the Consent to operate for Coke Oven plant and provided details and reports of the issues raised in the show cause notice. Hereto annexed and marked as **Exhibit-M** is a copy of reply dated 23/11/2022. This information is supplied by MPCB under RTI Act on 1/02/2024.

17. Further, on 21/11/2022 MPCB observed non-compliance of water used for slag cooling which was discharged into storm water which further flows to natural nalla which ultimately leads to Dharamter Creek also leakage and seepage was observed in various plant and also was observed that colour of the storm water drain is reddish brown which confirms contamination. Spillage of raw material was also observed at transfer points etc. Hereto annexed and marked as **Exhibit-N** is a copy of is a copy the show cause notice dated 21/11/2022.



18. On 25/11/2022 The company replied to the show cause notice with a flimsy reply that co incidentally on 03.11.2022 the water jacket elbow got punctured in Shell-4 resulting in overflow and pipeline got punctured therefore water was flown towards the slag cooling collection pit. Hereto annexed and marked as **Exhibit-O** is a copy of reply dated 25/11/2022.
19. On 16/12/2022 MPCB issued show cause notice stating that the Consent appraisal committee meeting was held on 20/12/2022 and it decided to defer the case for refusal of consent more specifically for non-submission of documents and details of ETP, for treatment of effluent generated from boiler, generation, treatment and disposal of chemical sludge etc. Hereto annexed and marked as **Exhibit-P** is a copy of is a copy the show cause notice dated 16/12/2022
20. On 20/12/2022 the respondent company Submitted a rely annexing document required and clarification to the issues raised by the MPCP. Hereto annexed and marked as **Exhibit-Q** is a copy of reply dated 20/12/2022.
21. Thus, it is evident from the information supplied by the MPCB that none of these violation for which its issued show cause notices were placed before the committee. Though Mr. Killedar was one of the members on the committee representing the



MPCB did not find it necessary to inform the show cause notices given by them pertaining to air water and soil pollution for the reason best known to them. The show cause notices are given in view of the incidences arose when the committee was supposed to make enquiry and supposed to submit its report to this Hon'ble Tribunal. Therefore, the committee should have taken cognizance of these reports and should have delt with these reports. However, the report is completely silent about the same.

22. On the contrary MPCB informed the complainant that the matter is subjudice before this court and on the said flimsy ground none of the show cause notices are taken to its logical end.

23. The contents of all show cause notices show the environmental violations is going on continuously, for which show cause notices are given replies were called for but no concrete action is taken by MPCB against the Respondent company. On one hand the MPCB is having power to impose penalties, to initiate criminal action and further to restore/ restitute the damage caused to the environment. The MPCP and CPCB are members of the committee and they have entire data but they don't want to share it with the committee appointed by this tribunal obviously to safeguard the interest of the company otherwise MPCB as well as CBCB could have brought to the notice of yeh committee



appointed by this tribunal about the violation caused by the company since 2015. Therefore, it is necessary that the strict action should be taken against the officers of MPCB and CPCB for hiding the information about the past violations from the joint committee.

24. I have taken out copy of a village map downloaded from Revenue Department (land records) and also village form No. 8 A showing the lands owned by the company in village Kharmachela for the sake of convenience I have put two colours on the said map, blue colour shows that the land owned by company and pink colour shows lands owned by farmers of members of Bapdev Mandal whose survey nos. list is enclosed to the Original Application rest of the open land belongs to other villagers and government. This village map shows that the lands owned by the company are adjoining and in the vicinity of land zoned by the members of Bhabhi Mandal to stop therefore the applicant are directly affected and lands are used by the company for dumping the waste. Hereto annexed and marked as **Exhibit-R** is a copy of Map of village from Revenue department (Land records).





25.I earnestly appeal this Hon'ble court to take cognizance of various instances mentioned in each of the show cause of environment violations on each day and take action.

Whatever stated in the above said paragraphs are true and correct facts which I believe to be true and correct and for that I have signed hereunder.

Solemnly affirmed at Raigad )

*[Handwritten Signature]*

On this 27 day of February, 2024 )

Applicant

Identified by me,

Advocate for the Applicant

Before me,



**BEFORE ME**

*[Handwritten Signature]*

Adv. Narendra H. Bafna  
B.Com,LLB  
NOTARY Govt. of Maharashtra  
Reg No. 1334/2019  
C/o. Narendra Cloth Stores  
L.B.S. Marg, Pen-Raigad-402107

Serial No. 120

No. of Pages: 5

Date 27 / 2 / 2024

Exh<sup>2759</sup> (A)

महाराष्ट्र प्रदूषण नियंत्रण मंडळ  
प्रादेशिक कार्यालय, रायगड

फोन नं: २७५७ ६०४०  
फॅक्स नं: २७५६२१३२



“आपली सेवा आमचे कर्तव्य”

रायगड भवन, ६वा मजला,  
सेक्टर-११, सी.बी.डी.बेलापूर,  
नवी मुंबई- ४०० ६१४.

जा.क्र./प्राकारा/मा.अ./२०२३/२३१२२०-एफटीएस-००८६

दिनांक : २०.१२.२०२३

प्रति,

सौ. समिता राजेंद्र पाटील,  
सुलभासदन, प्रभुआळी, पेण,  
ता. पेण, जि. रायगड

विषय:- माहितीचा अधिकार अधिनियम २००५ अंतर्गत अर्जाबाबतची माहिती.

- संदर्भ:- १. आपला माहितीचा अधिकार अधिनियम २००५ अंतर्गत अर्ज या कार्यालयास प्राप्त दि.०६.११.२०२३ (आवक क्र.२३११०६-एफटीएस-००९०).  
२. उप-प्रादेशिक अधिकारी, रायगड-२ यांच्याकडून प्राप्त झालेली माहिती दि. २०.१२.२०२३.

वरील विषयाच्या अनुषंगाने या कार्यालयास आपला माहितीचा अधिकार अधिनियम, २००५ अंतर्गत अर्ज या कार्यालयास दि.०६.११.२०२३ (आवक क्र.२३११०६-एफटीएस-००९०) रोजी प्राप्त झाला असून माहिती अधिकार अंतर्गत आपण मागितलेल्या अर्जाची माहिती उप-प्रादेशिक अधिकारी, रायगड-२ यांच्याकडून प्राप्त झालेली असून आपल्या माहितीसाठी सोबत जोडत आहे.

सोबत - वरील प्रमाणे

  
सहायक माहिती अधिकारी  
तथा क्षेत्र अधिकारी,  
उप-प्रादेशिक कार्यालय, रायगड-१

प्रत माहितीसाठी सादर:-

१. प्रथम अपिलीय अधिकारी तथा प्रादेशिक अधिकारी, म.प्र.नि. मंडळ, रायगड.

2760

महाराष्ट्र प्रदूषण नियंत्रण मंडळ  
उप प्रादेशिक कार्यालय, रायगड - २

फोन नं. : २७५७ ६०४०  
फॅक्स नं. : २७५६ २१३२



रायगड भवन, ६ वा मजला,  
सेक्टर - ११, सीबीडी, बेलापूर,  
नवी मुंबई - ४०० ६१४.

"आपली सेवा आमचे कर्तव्य"

जा.क्र./उपप्राकारा-२/ मा.अ./२०२३/२७३१

दिनांक: २०/१२/२०२३.

प्रति,  
माहिती अधिकार तथा  
उप प्रादेशिक अधिकारी, म. प्र. नि. मंडळ,  
रायगड

विषय: माहिती अधिकार अधिनियम २००५ अंतर्गत अर्ज.  
संदर्भ: १. सौ. समिता राजेंद्र पाटील, सुलभासदन, प्रभुआळी, पेण, ता. पेण, जि. रायगड  
यांचा दि. ११.०९.२०२३ रोजीचा माहिती अधिकार अधिनियम, २००५ अंतर्गत अर्ज.  
२. जन माहिती अधिकारी तथा उप प्रादेशिक अधिकारी, म. प्र. नि. मंडळ, रायगड यांचा  
ई-मेल दि. ०६.११.२०२३.

जन माहिती अधिकारी, म. प्र. नि. मंडळ, रायगड यांच्याकडून अर्जदार सौ. समिता राजेंद्र पाटील, सुलभासदन,  
प्रभुआळी, पेण, ता. पेण, जि. रायगड यांचा माहिती अधिकार अधिनियम, २००५ अंतर्गत अर्ज या कार्यालयास प्राप्त  
झाला आहे.

सदर अर्जाच्या अनुषंगाने आवश्यक असलेली मुद्देनिहाय माहिती खालीलप्रमाणे आहे.

अनु. क्र.	प्रश्न	उत्तर
१.	१ जानेवारी २०२० ते ६ नोव्हेंबर २०२३ पर्यंत JSW कं. डोलवी, ता. पेण, जि. रायगड यांना दिलेले 1) Environmental Clearance, 2) Compliance Report, 3) Non compliance Report, 4) Notices तसेच केलेल्या कारवाईची संपूर्ण नस्ती/फाईल मिळणेबाबत.	प्रती सोबत जोडल्या आहेत.

(रा. स. कामत)

उप प्रादेशिक अधिकारी, रायगड-२

प्रत माहितीसाठी सादर:-  
अपिलीय अधिकारी तथा प्रादेशिक अधिकारी, म.प्र.नि. मंडळ, रायगड.

# 2761

Phone :	24010437/24020781 /24037124/24035273		Kalpataru Point, 3rd & 4th floor, Sion-
Fax :	24044532/24024068/24023516		Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E),
Email :	rohq@mpcb.gov.in		Mumbai - 400 022
Visit At :	<a href="http://mpcb.gov.in">http://mpcb.gov.in</a>		

MPCB/RO(HQ)/HWMC- 417

Date: - 16/9/2020

To,  
M/s. JSW Steel Limited  
91 to 113, Khar Karavi Dolvi, Pen,  
Dist. Raigad  
E-Mail: [avinash.shikhare@jsw.in](mailto:avinash.shikhare@jsw.in)

**Sub:** Show Cause Notice under Clause (b) of Sub-Section (4) of Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Hazardous & other Wastes (Management & Transboundary Movement) Rules, 2016 w.r.t. Annual Returns of Hazardous Waste to be filed for the year 2019-20

**Ref:** 1. Consent to Operate and Authorization granted by MPC Board.  
2. Annual Returns submitted by you for the year 2019-20 under the Hazardous & other Wastes (Management & Transboundary Movement) Rules, 2016.

**WHEREAS**, the Maharashtra Pollution Control Board has granted the Consent to Operate u/s 26 of the Water (Prevention and Control of Pollution) Act, 1974 and u/s 21 of the Air (Prevention and Control of Pollution) Act, 1981 & Authorization/Renewal of Authorization under Rule 6 of the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 subject to certain terms and conditions.

**AND WHEREAS**, as per the provisions of the Hazardous & other Wastes (Management & Transboundary Movement) Rules, 2016, it is obligatory on your part to maintain a record of hazardous and other wastes managed by you in Form 3 and prepare and submit to the State Pollution Control Board, an annual return containing the details specified in Form 4 on or before the 30<sup>th</sup> day of June every financial year.

**AND WHEREAS**, this office is in receipt Annual report 2019-2020, online submitted by you. After scrutiny of the report, it has been observed that generation and disposal of Hazardous waste is NIL in the financial year 2019-2020

**NOW THEREFORE**, you are directed to show cause as to why suitable legal action shall not be taken against you as per provision under the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Wastes (M & TM) Rules 2016.

...2/-

: 2 :

Your reply to this notice along with raw material consumption and production details for the year 2019-20 shall reach to this office as well as Concern SRO office within a period of Seven days from the receipt of this communication, failing which; the Board will have no option than to initiate appropriate legal action against you, which please note.



(N. N. Gurav)  
Regional Office (HQ)

**Copy submitted to:** P.S. to Member Secretary, for information

**Copy to:**

1. SRO – Raigad-II - He is directed to take follow up and ensure the compliance of the aforesaid directions on priority
2. Regional Officer - Raigad - information and necessary follow-up



**JSW Steel Limited**

Dolvi Works: Geetapuram,  
Dolvi, Taluka - Pen,  
Dist Raigad - 402 107, Maharashtra, India.  
CIN: : L27102MH1994PLC152925  
Phone : +91 2143 277501-15  
Fax : +91 2143 277533/42  
Website : www.jsw.in

JSW Steel /COP-2/MPCB/2020

September 21, 2020

To

The Regional Officer, (HQ),  
Maharashtra Pollution Control Board,  
3<sup>rd</sup> Floor, Kalpataru Point,  
Sion, Mumbai - 400 022.

**Sub:** Reply to Show Cause notice for JSW Steel Ltd., Dolvi, under clause (b) of Sub Section (4) of the Water (prevention and control of pollution) Act, 1974 and Section 21 of the Air (Prevention and control of pollution) Act 1981 and Hazardous Wastes (Management & Handling) Rules 2016 w.r.t annual returns of Hazardous wastes filed for the year 2019-20

**Ref:** 1) Your letter with Ref. No. MPCB/RO (HQ)/HWMC-417 Dated 16/09/2020.  
2) Submission of Form 4 for Hazardous Wastes Annual Returns for the period 2019-20.  
3) Consent to Operate received from MPCB for Coke Oven Plant II.

Dear Sir,

With reference to above, we have received your above letter on 16<sup>th</sup> September 2020 through e-mail and we humbly submit that M/s. JSW Steel Ltd., Dolvi is complying with the Consent to Operate conditions under section 26 of The Water (prevention and control of pollution) Act, 1974 and under section 21 of the Air (Prevention and control of pollution) Act 1981 and Authorization under Rule 6 of Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

As per the Hazardous Wastes (Management & Transboundary Movement) Rules 2016, we have submitted the form 4 in MPCB Portal through on line for all the plants before 30<sup>th</sup> June 2020 as per the guidelines.

Coke Oven Plant II at JSW Steel Ltd is a new Plant and there is no generation of used or spent Oil and other wastes like spent catalyst, Chemical Sludge, Decanter sludge for the period 2019-20.



JINDAL Part of O.P. Jindal Group

Regd. Office: JSW Centre,  
Bandra Kurla Complex,  
Bandra(East), Mumbai - 400 051.  
Phone : +91 22 4286 1000  
Fax : +91 22 4286 3000



The Raw material consumption and Product/By-product details for the year 2019-20 for Coke oven plant of capacity 1.5 MTPA is as below.

S. No	Name of the Product	Quantity (MT)
	<b>Raw Material</b>	
1	Coal (MT)	1917117
	<b>Product / By Product</b>	
1	Coke (Gross) (MT)	1353001
2	Tar (MT)	53629
3	Benzol (MT)	5650
4	Sulphur (MT)	Nil
5	Coke Oven Gas (m3)	639104000

#### Hazardous Waste Detail for 2019-20

S. No	Name of the HW / Category	Generation as per the Consent	Actual Generation	Mode of Disposal / Remarks
1	Used / Spent Oil (5.1)	15000 L/Yr	Nil	Will be sold to MPCB/CPCB authorised recyclers. No generation for the year 2019-20, since this is a new plant
2	Spent Nickel Catalyst (35.2)	8 T/Yr	Nil	This will be generated once in 3 to 4 years during capital shutdown and will be sold to authorised recyclers
3	Sludge from BOD plant (35.3)	225 T/Yr	Nil	This is a new plant and no sludge generated
4	Decanter Sludge (13.4)	156.25 T/Yr	Nil	This is a new plant and no decanter sludge generation. Will be recycled in coke oven process
5	Cotton Wastes mixed with Oil (5.2)	225 Kg/Yr	Nil	Will be used as fuel in Electric arc furnace

Sir, Coke Oven Plant II is a new plant and no Hazardous Wastes generated for the period FY 2019-20. We will time to time comply the Hazardous Wastes (Management



& Transboundary Movement) Rules 2016 as per the generation of Wastes under Hazardous Waste Category

Sir, with reference to above justification, we are committed to environment protection and ensure you that we are in compliance to the consent conditions as stipulated by MPCB.

The above clarifications stated herein above, we request you to kindly accept our reply and we would also like to assure you that we have not contravened any of the provisions of under section 26 of The Water (prevention and control of pollution) Act, 1974 and under section 21 of the Air (Prevention and control of pollution) Act 1981 and Authorization under Rule 6 of Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

Also it is our humble request you to please withdraw the show cause notice issued against our industry.

Thanking you,  
For JSW Steel Ltd., Dolvi.

Dr Anand Rai  
General Manager (Head - Environment)

- CC: 1. Regional Officer, Raigad, MPCB, CBD Belapur, Navi Mumbai.  
2. Sub-Regional Officer, Raigad II, MPCB, CBD, Belapur, Navi Mumbai.



Exhibit 2766

Tel: 24010437/24020781/24014701		Kalpataru Point, 2 <sup>nd</sup> - 4 <sup>th</sup> Floor
Fax: 24024068 / 24023515		Opp. Cine Planet Cinema,
Website: <a href="http://mpcb.mah.nic.in">http://mpcb.mah.nic.in</a>		Near Sion Circle, Sion (E)
E-mail: <a href="mailto:cac-cell@mpcb.gov.in">cac-cell@mpcb.gov.in</a>		Mumbai-400 022.

No. BO/CAC-CELL/SCN/TB-2103300002

Date: - 30/03/2021

To,  
M/s JSW Steel Plant- Ready Mix Concrete Plant.  
S.No.28,29 & 115 of Khar Karav village & Beneghat village  
Geetapuram Dolvi Tal-Pen, Dist-Raigad.

**Sub: Show Cause Notice under the provisions of Water (P & CP) Act, 1974 and Air (P & CP), 1981 for refusal of renewal of consent to operate.**

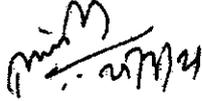
**Ref: (1) Your application for renewal of consent vide UAN No. 0000102768.  
(2) Minutes of Consent Appraisal Committee meeting held on 17.03.2021.**

WHEREAS, you have applied for renewal of consent to operate as per the provisions of Section 26 of the Water (Prevention and Control of Pollution) Act, 1974; under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

AND WHEREAS, your consent application was placed before Consent Appraisal Committee meeting held on 17.03.2021 and it was decided to defer the case and issue show cause notice for refusal of consent as the industry has not provided adequate air pollution control system to the RMC plant.

AND THEREFORE, you are now directed to Show Cause as to why, your application for renewal of Consent to operate for RMC Plant shall not be refused under the provisions of Water (P & CP) Act, 1974 and Air (P & CP) Act, 1981, and also why further necessary legal action shall not be initiated under the provision of above said Act against you.

You are instructed to submit your reply within 07 days after receipt of this letter, failure to this, it will be presumed that you have nothing to say and final refusal of Consent will be issued, which may please be noted.

  
(P.K Mirashe)

Assistant Secretary (Tech.)

Copy for necessary action to:-

Regional Officer, Raigad / Sub-Regional Officer, M.P.C Board, Raigad-II. - To ensure that SCN to be served to the unit & report the compliance accordingly within 7 days.

**2767**  
**MAHARASHTRA POLLUTION CONTROL BOARD**  
Regional Office, Raigad

Phone: - (022) - 2757 6034  
Fax.: - (022) - 2756 2132  
E-mail: - roraigad@mpcb.gov.in  
Website: - http://mpcb.gov.in



Raigad Bhavan, 6th Floor,  
Sec-11, C.B.D. Belapur,  
Navi Mumbai 400 614.

No.BO/RO-Raigad/SCN/TB- 2108040007

Date: 04.08.2021

To,  
M/s. JSW Steel Ltd.,  
(Hot Strip Mill Plant-3.5 MTPA),  
Geetapuram, Village Dolvi,  
Tal. Pen, Dist. Raigad.

**Sub:- Show Cause Notice for Closure under section 33A of the Water (P & CP) Act, 1974 & under section 31A of the Air (P. & C.P.) Act, 1981 and the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016**

**Ref: - 1) Consent granted by the Board vide consent no. BO/CAC-Cell/UAN No. 0000045821-18/CAC-1811000099 dated 02.11.2018 which is valid upto 30.04.2023.**  
2) Direction letter issued dated 05.08.2020.  
3) Complaint received from Kailash Anerao dated 05.07.2021.  
4) Visit of Board Official dated 06.07.2021.  
5) Action proposal approved by HQ vide Legal Unique No. MPCB-LEGAL\_ACTIONS- 310820014, dtd. 16.07.2021.

**WHEREAS**, you are operating the unit in the Water Pollution Prevention Area declared under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981 and the Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016

**AND WHEREAS**, Board has granted Consent to Operate to your unit under the said Acts with certain terms & conditions which is valid upto 30.04.2023 and it is obligatory on your part to comply the consent conditions imposed in the Consent to Operate.

**AND WHEREAS**, the Board had issued direction letter dated 05.08.2020, and directed to comply the following directions;

1. Industry shall comply with all conditions prescribed in the consent issued by the Board and dispose off the existing as well as proposed generated slag as per consent conditions at designated places in scientific manner.
2. You shall explore the possibilities of utilization of slag in cement manufacturing, used as aggregates in civil and road construction and brick manufacturing activity including land reclamation, and in marine applications as per CPCB guidelines without violations of consent conditions.
3. You shall strictly follow the guidelines on handling and management of High Volume Low Effect Waste- Slag from pyrometallurgical operations of Iron and Steel and Ferrous Alloy units prepared by CPCB.
4. You shall take all precautionary measures to avoid any soil contamination, groundwater and surface water pollution, also any adverse effect on environment and nearby villagers.

5. You shall strictly comply with all consent conditions CPCB guidelines and orders issued by Hon'ble NGT.

**AND WHEREAS**, this office is in receipt of complaint from twitter handle of Kailash Anerao dated 05.07.2021 regarding dumping of toxic coal flyash alongside the Mumbai-Goa Highway on rice fields and wet land of village Gadap. Accordingly, Board Official visited the said site for investigation and observed that landfilling/disposal of slag mixed soil was being done of about 10 to 12 feet height covered almost one acre of above said land parcel. The water sample collected from the said land parcel shows pH about 9-10 which is alkaline in nature. The said alkaline water may percolate the ground water as well as pollute the rice fields of nearby areas. You have failed to comply the direction issued by the Board with respect to slag disposal.

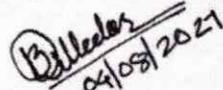
**AND WHEREAS**, Sub-Regional Officer, Raigad-2 has forwarded the action proposal to initiate action against your unit due to above non-compliance.

**AND WHEREAS**, after examining the records of your case, the reports the official of the Board & after necessary inquiry, I am satisfied that you have made grave & sudden injury to the Environment. It shows that your negative attitude towards compliance of provision of various environmental enactments.

**NOW THEREFORE**, in exercise of the powers conferred by the Board upon me u/s 33A of the Water (Prevention & Control of Pollution) Act, 1974 & u/s. 31A of Air (Prevention & Control of Pollution) Act, 1981, you are hereby directed to show cause as to,

- 1) Why your industry shall not be closed down?
- 2) Why legal action shall not be initiated against your unit?
- 3) Why your Bank Guarantee shall not be forfeited?
- 4) Why environment compensation shall not be imposed on you as per CPCB Guidelines for the above non compliances?

Your reply shall reach this office within 7-days period from the receipt of this Show Cause Notice failing which, further legal action will be initiated which may result in closure of your unit, which please note.

  
(V. V. Killedar)  
Regional Officer, Raigad

**Copy Submitted to:**

1. Regional Officer (HQ), Sion, M.P.C. Board, Mumbai

**Copy to:-**

1. Sub-Regional Officer, MPC Board, Raigad-2 – You are instructed to serve the copy of SCN & submit compliance immediately.
2. Master file



# 2769

**JSW Steel Limited**

Dolvi Works: Geetapuram,  
Dolvi, Taluka - Pen,  
Dist Raigad - 402 107, Maharashtra, India.  
CIN. : L27102MH1994PLC152925  
Phone : +91 2143 277501-15  
Fax : +91 2143 277533/42  
Website : www.jsw.in

JSW/ENV/MPCB/2021.

Date: 7<sup>th</sup> August 2021

**BY Hand Delivery**

To,

The Regional Officer, Raigad,  
Maharashtra Pollution Control Board,  
Raigad Bhavan, 6th Floor,  
Sector 11, CBD, Belapur,  
Navi Mumbai - 400 614.

**Sub:** Show cause notice for Closure under section 33 A of the Water (P & CP) Act 1974 & under section 31 A of the Air (P & C.P) Act 1981 and the Hazardous & Other Waste (Management & Transboundary Movement) Rules 2016

**Ref:** 1. Your letter No. BO/RO-Raigad/SCN/TB-2108040007 dated 04/08/2021.  
2. Our letter No. JSW/ENV/MPCB/2020 dated 06/08/2020

Respected Sir,

We are in receipt of your letter dated 04/08/2021 through your email dated 04/08/2021 which was received by us at 05/23 pm and in reply thereto we have to state as under;

We are very surprised to receive the show cause notice (SCN) from your office based on a twitter complaint regarding alleged dumping of toxic coal fly ash alongside Mumbai goa highway on rice field and wet land of village Gadab.

The allegation is regarding dumping of toxic coal fly ash which is not at all produced in our factory, hence, the complaint is false & baseless.

We state that some anti-social elements with vested interests are wilfully complaining against us without verifying the facts only with an intent to tarnish our image and create false documents. There is no wet land as declared by the NCSCM in the alleged area. Our EC and CTO/ CTE mentions that there is no fly ash generated. The allegations itself are without any basis. The complainant is not coming forward to point the exact place where so called dumping took place. Just vague and unfounded basis of allegations are made against us.

We state that even when the samples were taken the main allegation regarding fly ash was not found at all. The allegations were utterly false. And that is the reason the complainant did not come forward and simply filed it on twitter.

We urge your good self to please verify the credentials of the complainant going forward as they may have the motive to cause damage to our name only.



JINDAL Part of O.P. Jindal Group

1

Regd. Office: JSW Centre,  
Bandra Kurla Complex,  
Bandra(East), Mumbai - 400 051.  
Phone : +91 22 4286 1000  
Fax : +91 22 4286 3000



Further, we also refer to our reply dated 6th August, 2020 which was also filed in Hon'ble NGT in a case. We state that we are adhering to all the same very scrupulously and that there are no violations as mentioned in the CTO/CTE issued to us.

Coming to the point of concern for us is that the area where the landfilling was found is not in our control and is beyond the factory premises. The concerned farmer must have taken it for his own use and that we as company have not done it. Further, as per the directions issued to us in August 2020 we are doing land filling in low lying area for land reclamation only.

Without prejudice to the aforesaid facts and observation we have to further state as under;

1. That, we have been granted Consent to Operate for our different plants of Integrated Steel plant under the relevant sections of the Water Act, Air Act and Hazardous Waste Rules 2016 and related amendments therein.

And that, we have taken adequate control measures and installed pollution control devices and treatment plants with one of the best available technologies at all units in our plant to control and prevent pollution from all sources. JSW Steel Ltd., Dolvi is complying the stipulated Consent conditions time to time.

2. The Blast Furnace Slag is generated from the Blast Furnace I and is 100 % utilized for cement making.

3. Steel slag generated from Electric Arc Furnace (EAF) and currently utilizing these slags in various applications in line with the recommendations made by Central Pollution Control board and Bureau of Indian Standard (BIS) Guidelines as follows:

- i) As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, high volume low effect wastes i.e. Steel slag is non-hazardous in nature. Therefore, it is not having adverse effect on nature and human health.
- ii) We have already been working with reputed institutes like Central Road Research Institute (CRRI), Central Building Research Institute (CBRI), IIT- Mumbai and Central Water Power Research Station (CWPRS) for usage of steel slag in a Scientific manner for various construction purposes. CBRI & CRRI has carried out leaching test of steel slag and found good material (report of Leaching test of CBRI is attached as Annexure 1).
- iii) Steel slag can be used for various applications like Civil Construction, Soil Conditioner, Aggregates for Roads, making Blocks/Tiles etc. However, pH of steel slag is slightly alkaline due to presence of lime content due to Limestone which is used in manufacturing of liquid metal.
- iv) Steel slag is used as a substitute for limestone in agricultural applications for its use in reclamation of acidic soils. In addition to the liming materials, steel slag contains various concentrations of plant micro nutrients, such P, S, Mn, Fe, and Mo.
- v) Steel slag is good substitute of river sand for utilization in construction purpose and BIS has allowed as fine aggregates (IS – 383) for construction purpose.

vi) Ministry of Road Transport & Highway has also issued a Circular dated 21.07.2020 for using of steel slag as manufactured aggregate in Highways as per vide clause no 4.2.1, IS: 383-2016 (Annexure 2).

vii) Solid waste generated from different units of the plant are being reutilized in various processes of iron and steel making in the most scientific and effective manner and in strict compliance to the consent conditions as permitted by MPCB and as per the guidelines of Corporate Responsibility for Environment Protection (CREP) for Iron and Steel Industries.

We confirm to strictly comply with all the conditions stipulated from time to time and follow the CPCB guidelines and orders issued by Hon'ble NGT for utilization of steel slag.

The complaint received from Mr. Kailash Anerao over twitter on 05/07/2021 regarding dumping of toxic coal fly ash alongside of the Mumbai Goa highway on rice fields and wet land of village Gadab is totally incorrect and misleading and thus is not done by our industry, since our industry is not generating any coal fly ash from the plant. The report of the field officer of MPCB also does not mentions about the same. However, the Slag generated from the Steel plant is used for land reclamation as per the individual request letter received from the land owners in some cases. As mentioned above the slag is a separate revenue source for us in near future and thus it is natural that we will not be sending it outside our premises.

We would once again like to reiterate the fact that we have not knowingly or wilfully violated any provisions or the consent conditions of the Water Act 1974, the Air Act 1981 or the Environment (Protection) Act 1986.

With reference to our above point wise clarifications and commitment towards environment protection, it may please may be reaffirmed that JSW Steel Ltd., Dolvi is complying with all the provisions of The Hazardous Wastes (Management & handling) Rules 2016 and recommendations and suggested by Hon'ble NGT compliance time to time.

We hereby, humbly submit our reply to the above mentioned show cause in order and request your kindness not to initiate any further action and kindly withdraw the Proposed Directions and oblige.

Thanking You,

Yours Faithfully,  
For JSW Steel Ltd., Dolvi Works,



Authorized Signatory,

CC:

1. The Regional Officer (HQ), MPCB, Sion, Mumbai
2. The Sub- Regional Officer, Raigad -II, MPCB, Raigad Bhavan, 6th Floor, CBD, Navi Mumbai.

**2772**

*ANNEXURE I*

**Steel Slag Analysis Report by  
Central Building Research Institute (CBRI),  
New Delhi**

and its suitability as construction materials. However, the leaching behaviour of EAF slag aggregate in concrete, stability of concrete, and durability is under progress. EAF slag based concrete might results in very less leaching of toxic metals due to masking effect (Poon et al. 1985, Shively et al. 1986).

## 2. EXPERIMENTAL STUDIES

### 2.1 Materials

EAF slag was collected from M/s JSW Steel Ltd., Dolvi, Maharashtra, India. It was black in colour with porous texture as shown in Figure 1. For the leaching analysis, EAF slag, deionized water (DI H<sub>2</sub>O), acetic acid (Thomas Baker), NaOH (97% Laboratory reagent grade, Thomas Baker), and HCl (35-38% Laboratory reagent grade, Thomas Baker) have been used as received without any further purification/treatment.

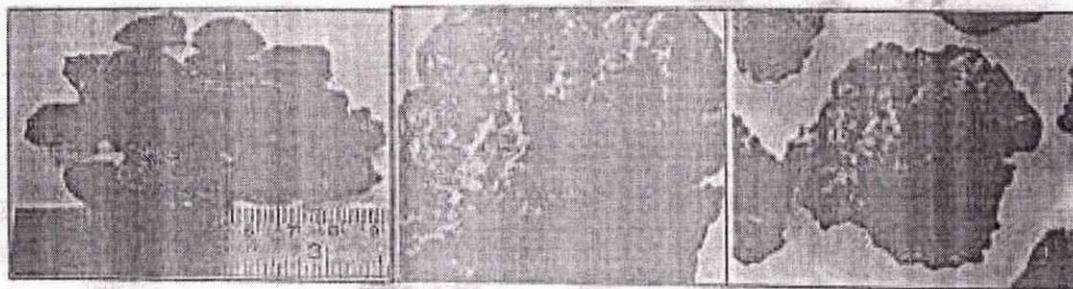


Figure 1: View of EAF slag

Table 2 illustrates the physical properties of EAF slag coarse aggregate used for leaching analysis. Specific gravity and water absorption tests were performed as per IS 2386-3 (IS 1963). Maximum size of crushed EAF slag was 20 mm. Bulk density and void content test was performed according to IS 2386-3 (IS 1963). While impact value and crushing value tests were performed as per IS 2386-4 (IS 1963). The ethylene-glycol test was performed to determine the free CaO content in accordance with Javellana and Javed (1982).

Table 2. Properties of EAF slag

Parameters of coarse aggregates	EAF slag coarse aggregate	Sand stone coarse aggregate	Permissible limits (IS383-2016)
Specific gravity	3.74	2.69	-
Water absorption (%)	1.39	0.62	-
Bulk density (kg/m <sup>3</sup> )	1800	1530	-

Void content (%)	52.00	43.12	-
Resistance to fragmentation (%)	17.79	18.30	30, maximum
Aggregate crushing value (%)	24.26	25.23	30, maximum
Los-Angeles abrasion resistance (%)	23.16	23.45	30, maximum
Free CaO determination	0.89	-	-

## 2.2 Physico-chemical Characterization

EAF slag was characterized for its mineralogy through XRD pattern using Rigaku X-ray diffractometer with wavelength 1.5418740 Å (Cu-K). The room temperature was maintained at 25°C with scanning rate of 1°/min during the analysis. X'Pert High Score Plus software was used for the crystalline phase identification. The quantitative analysis for present phases was also performed by Rietveld refinement with the GSAS-EXPGUI software (Larson and Dreele, 2004). The  $\chi^2$  was used to represent the fitting accuracy (goodness of fit) (Young, 1995). Minerals composition of EAF slag was estimated by with X-ray fluorescence (XRF, Bruker S4 Pioneer spectrometer). This technique measures the fluorescent emitted from the secondary X-ray when a primary X-ray source excited it. Characteristic fluorescent X-rays of particular wavelength emitted from sample after excitation is unique for the specific element. Leachates were analyzed by digital pH meter (Eco SpectraLab), electrical conductivity meter (Hanna Instruments), ICPMS analysis (Perkin Elmer, Model no. ELAN DRC-e), and ICP-OES (Pridigy 7) high dispersion instrument. FE-SEM was performed for the morphological analysis of EAF slag. It is powerful version of microscope, which uses high-energy electron beam instead of light to generate variety of signals such as secondary electrons, X-rays and reflected electrons from the surface of solid samples. In FE-SEM, the electrons are generated from thin and sharp tungsten needle under electric field. The sample was gold coated before the analysis and the analyzed. The voltage requirements between the tungsten cathode and anode are 0.5-30 kV in the presence of high vacuum. The focused and accelerated electrons bombard the surface of the sample and secondary electrons are generated from sample. These secondary electrons are caught by detector and generate an electronic signal.

## 2.3 Digestion and ICPMS analysis

ICP-MS was performed for the heavy/ toxic metal analysis of raw EAF slag using Perkin Elmer (Model- ELAN DRC-e) *Inductively Coupled Plasma Mass Spectrometry* (ICP-MS). The instrument had the detection range and limit from Li to U, up to sub ppb with frequency and power of 40 MHz and 1600 Watts respectively. The concentric quartz rod, alumina injector and Scott type spray chamber were used for the analysis. The EAF slag fines were ground to fine powder in a clean pulveriser. Then 1 g of

sample was taken in a Teflon beaker and digested with solution of 4 mL hydrofluoric acid and 6 mL of Nitric acid on a hot plate and cooled, filtered and made up to 50 mL with ultrapure water of resistivity 18.2 M $\Omega$ ·cm. All the glass-ware and polythene flasks were cleaned with 2% v/v nitric acid rinsed with ultrapure water and dried to use in sample preparation. Since the samples were being tested for heavy and trace metals, they were digested in controlled atmosphere. Ultrapure acids (procured from E-Merck, India) were used for digestion of samples and blank test. The study also compared the obtained values in original EAF slag itself with the maximum allowed concentration levels specified by the EPA (US Environmental Protection Agency) for leachate samples of various heavy and trace metals.

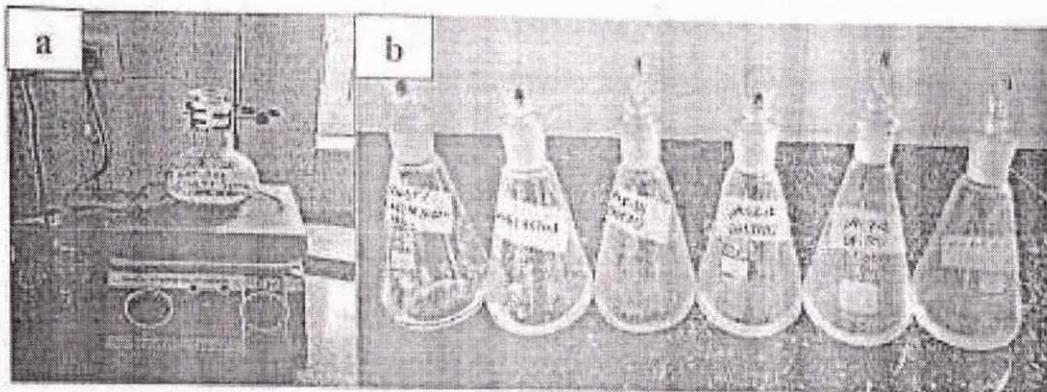
#### **2.4 Leaching analysis**

The leaching test for EAF slag was performed using three different analysis namely sequential batch water leach test (SWLT), toxicity characteristic leaching procedure (TCLP) and batch method. The leaching analysis for different toxic metals at different pH was analyzed through these methods. Slag particle size influences leaching test results. That is why, particle size of EAF slag was selected 2 mm for SWLT whereas average 10 mm sized EAF slag aggregate for TCLP and modified batch method which was studied as per standard procedure given in ASTM D3987, EPA method-1311 and European standard EN 12457-2, respectively. The coarse aggregate in construction is usually passing from 20 mm, retained on 4.75 mm, whereas fine aggregate passing through 4.75 mm, and retained on 150  $\mu$ m (IS-383-2016). The two sizes of EAF slag aggregates were used for leaching study. The main objective is the utilization of EAF slag as aggregates in the construction. Therefore, in the modified batch test was 10 mm average EAF slag aggregate was used for investigations in place of 4mm down aggregates as per EN 12457-2. Although, standard procedure (SWLT and TCLP) have been applied for the leaching test of EAF slag.

##### **2.4.1 Sequential batch water leach tests (SWLT)**

Sequential batch water leach test (SWLT) was carried out as per ASTM D3987 standard. One standard sample (T0) was prepared by taking 2.5 g of dry EAF slag having particle size  $\approx$  2 mm. The samples were placed in round bottom flask and added 50 mL of 0.02 M NaCl influent solution. The resultant reaction mixture of pH 10.29 was placed on constant stirring at 20 rpm for 18 h (Figure 2). Afterward, the sample was kept on centrifuge at 6000 rpm for 15 minutes to further settle the particles and the suspension was separated via syringe filter (0.2  $\mu$ m). Finally, filtered solution was subjected for electrical conductivity (EC), pH and ICP-OES analysis. In addition to

the standard sample (T0), five different samples were also prepared by the same method but with different pH, which were regulated with the addition of acidic or basic solutions. These five samples were prepared with pH of 4.0, 5.3, 6.1, 7.2 and 8.5. The leachates of these samples were also collected and represented as T1, T2, T3, T4 and T5 respectively. All leachates samples were stored in closed vessels and analyzed.



**Figure 2:** Sequential batch water leach test (SWLT) and leachates of EAF slag at various pH.

#### 2.4.2 Toxicity characteristics of leaching procedure (TCLP) method

Leaching of hazardous metals/elements was also analyzed by toxicity characteristics of leaching procedure (TCLP) (EPA method-1311). In this method, two extract fluids samples were prepared. Extract fluid sample one was prepared by the addition of 5.7 mL of glacial acetic acid, 50 mL DI H<sub>2</sub>O and 64.3 mL of 1N NaOH solution in volumetric flask. Resultant solution was diluted with DI water up to one litre with recorded pH of 4.93. Second extract fluid sample was made by addition of 5.7 mL glacial acetic acid and 50 mL DI H<sub>2</sub>O. Resultant solution was diluted with DI water up to one litre with the recorded pH of 2.88. Both samples were nomenclature as sample P1 and P2 for pH 4.93 and pH 2.88 respectively. The prepared extract was subjected for analysis of toxicity of EAF slag. The EAF slag particles of 10 mm size were used. The solid/liquid ratio of 1 was employed in this method. Agitator rotator rotated the resultant reaction mixture for 18 hours. After that, leachates were collected through vacuum filtration.

#### 2.4.3 Batch test

Batch leaching test is the preferred choice at the laboratory scale for regulatory assessment due to their simplicity, reproducibility and short time requirements. For the leaching analysis of EAF slag, modified batch test (European standard EN 12457-2) was employed (Windt et al. 2011). The EAF slag was crushed and sieved from 12 mm

sieve and retained on 10 mm sieve. 1 kg of EAF slag sample was collected with particle size = 10 mm. The test samples were washed three times with deionized water and placed in a 3 litre borosil glass container and filled with 1 litre deionized water as a leaching solution. For 1:1 solid/liquid ratio, authors have used 1 l/kg liquid to solid. The tests were performed under closed conditions, preventing any significant atmospheric inputs of carbon dioxide and oxygen. The resultant mixtures were kept for 5 days and agitated every day for 5 minutes (Figure 3). The leaching tests were performed at pH = 4, 5 and 6. For maintaining the pH of deionized water 1N HCl solution was used. After that, the obtained leachates were collected through filtration (Figure 4). The leachates were represented as B1, B2, B3, B4, B5 and B6 for 5 days, 10 days, 15 days, 30 days, 45 days and 60 days respectively at pH 4. Similarly, leachates of pH = 5 and pH= 6 samples were represented as C1, C2, C3, C4, C5 and C6 and D1, D2, D3, D4, D5 and D6 respectively. The obtained leachates were characterized through ICP-OES analysis. The pH values measured in the vessels corresponded to the natural pH resulting from the interactions between EAF steel slag and the leachates. A small volume (a few mL) of the leachate was sampled at different duration. The same volume of ultra-pure water in order to maintain a constant L/S ratio and to limit the perturbation of the system replaced the sampled volume. Leachates were filtered through 0.22  $\mu\text{m}$  membranes filters, acidified with concentrated  $\text{HNO}_3$  and subsequently analyzed for Al, Ca, Cr, Fe, Mg, Mn, Si and V through ICP-OES. The redox state of Cr, Fe and V in the leachates was not determined experimentally, thus the concentrations reported correspond to total concentrations. The pH, and conductivity of the leachates were measured regularly; the later by means of a Pt/calomel reference electrode.

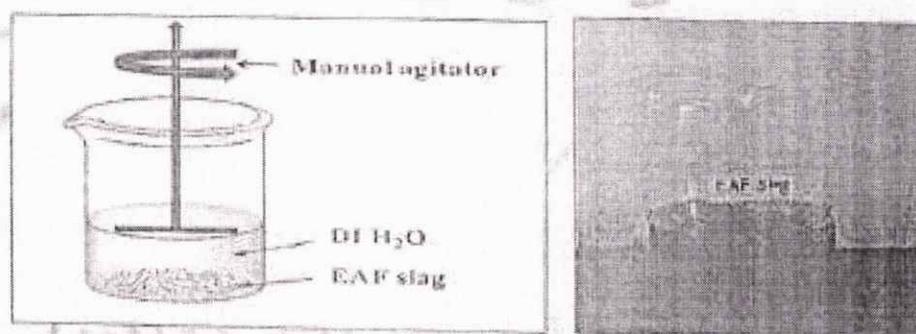


Figure 3: Leaching setup for the EAF slag by using batch method.

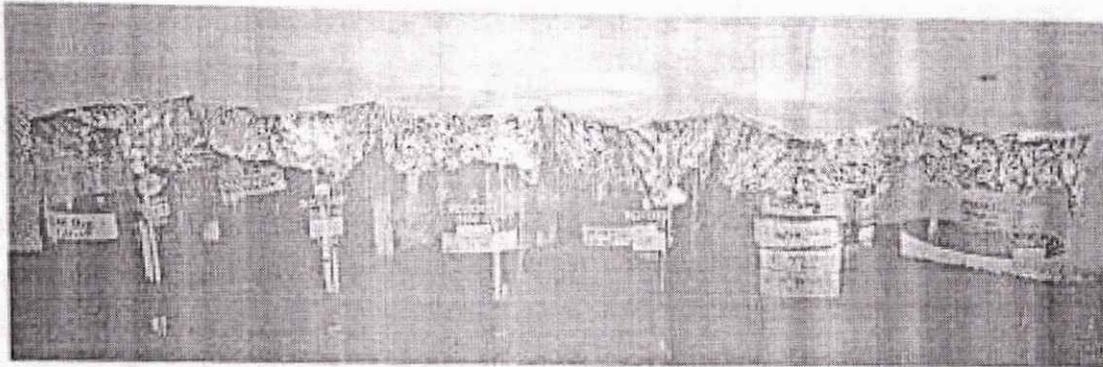


Figure 4: Batch test of EAF slag for 5, 10, 15, 30, 45, and 65 days at pH = 6.

### 3. RESULTS AND DISCUSSION

#### 3.1 Physico-chemical Characterization

XRF analysis has performed to determine the chemical composition of EAF slag and represented in Table 3. Significant concentration of Fe, Ca, Si, Al, Mg, and Mn are observed. Chemical compositions exhibit about 75% content of iron, calcium and silicon oxides while some other minor concentration of oxides of magnesium, aluminium, and manganese have been observed. The crystalline nature of EAF slag has characterized through powder X-ray diffraction pattern. Figure 5 exhibits the XRD pattern of EAF slag, which contains of iron oxides minerals. gehlenite, larnite, wustite and magnetite are the iron minerals detected through XRD analysis

Table 3. Chemical compositions of EAF slag

Oxides	CaO	Fe <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	MgO	Mn	Cr <sub>2</sub> O <sub>3</sub>	SO <sub>3</sub>	Others
		3				0			
Weight, %	35.62	29.65	18.81	7.22	3.89	0.84	0.02	0.06	3.24

75% of iron oxides  
CSIR Touching Lives

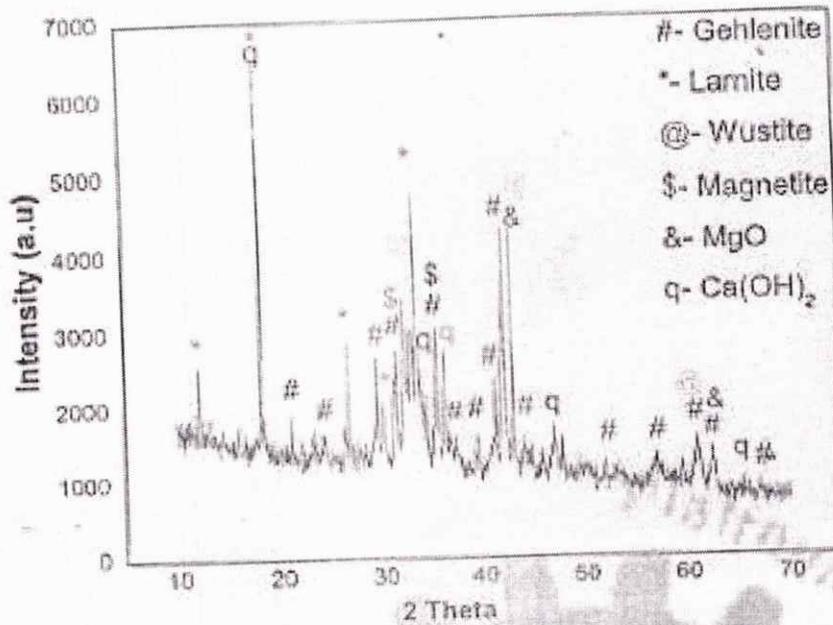


Figure 5: XRD pattern of EAF slag

Table 4 represents the quantification of crystalline phases in EAF slag through Rietveld analysis method. After the refinement, larnite ( $\text{Ca}_2\text{SiO}_4$ ) was found as major compound in EAF slag, this is also correlate with high calcium and silica percentage of EAF slag determined through XRF analysis. Wustite, a mineral form of iron oxide was also present as second major component of EAF slag. Magnetite, which is ferromagnetic form of iron oxide, was also present. While, alumina rich mineral Gehlenite was also present in EAF slag.

Table 4. Crystalline phases present in EAF slag (Rietveld method)

EAF Slag	Compounds						R-factor (%)
	Wustite	Magnetite	Larnite	Gehlenite	Periclase	Portlandite	
Composition (wt. %)	17.1	3.7	59.2	12.0	3.2	4.8	3.91

Figure 6 (a) illustrates the microscopic analysis of EAF slag at 5000x. EAF slag appeared rough in surface texture. The SEM analysis revealed that dispersion of different mineral phases namely larnite, gehlenite, wustite and magnetite is the reason of rough surface texture of EAF slag. On the other hand, the EDX analysis shows that the main elements in EAF slag are iron, calcium, silicon, aluminum and magnesium as

shown in Fig. 6 (b). The results obtained of EDXS analysis are also in symmetry with the XRD analysis.

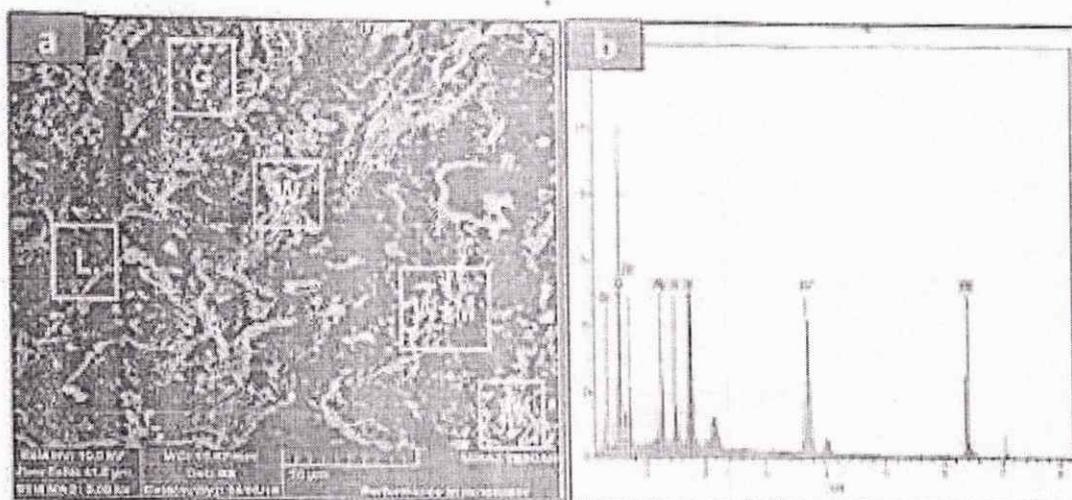


Figure 6: (a) Surface morphology of EAF slag, (b) EDX pattern of EAF slag. (\*L: Larnite; G: Gehlenite; W: Wustite; M: Magnetite).

So, for the analysis of essential compositions/contaminations of metals of EAF slag, ICPMS analysis of as received EAF aggregates was performed. Details of contamination of heavy toxic metals are given in the Table 5. The ICPMS analysis indicates that EAF slag contains higher concentration of calcium, iron, and manganese but heavy metals such as As, Hg, Cd and Cr (VI) were also found in very low contamination under the permissible limits given in IS-383-2016 for applications as aggregates.

Table 5. ICPMS analysis of EAF slag.

S.N.	Elements/Metals	Concentration (ppm)	Permissible maxlimits (ppm) as per IS383-2016
1.	As	$105.6 \times 10^{-3}$	150
2.	Hg	$0.22 \times 10^{-3}$	15
3.	Mg	$830.8 \times 10^{-1}$	-
4.	Cr (VI)	$640.2 \times 10^{-3}$	250
5.	Mn	$2974.7 \times 10^{-3}$	-
6.	Fe	$10151.3 \times 10^{-3}$	-
7.	Co	$8.7 \times 10^{-3}$	-
8.	Ni	$245.5 \times 10^{-3}$	-
9.	Cu	$51.1 \times 10^{-3}$	-
10.	Zn	$165.9 \times 10^{-3}$	-
11.	Cd	$10.8 \times 10^{-3}$	150
12.	Pb	$46.5 \times 10^{-3}$	150
13.	Ca	$13942.6 \times 10^{-3}$	-

### 3.2 Leaching analysis

#### 3.2.1 Sequential batch water leach tests (SWLT) analysis

Table 6 shows pH of different leachates samples generated through SWLT analysis. pH  $\geq 13$  was observed for all the samples, which are also good agreement with reported results of steel slag pH = 12.6 (Dayioglu et al. 2018). It is well known that EAF slag contains efficient quantity of free lime and some other metal oxides that's why leachates exhibit higher pH (Juenger et al. 2006; Ozkok et al. 2015).

**Table 6. Leachates pH from SWLT method.**

S.N.	Sample	pH of leachates
1.	T0	13.5
2.	T1	13.6
3.	T2	13.7
4.	T3	13.7
5.	T4	13.8
6.	T5	13.7

Table 7 shows the electrical conductivity of six leachates samples. Results indicate that sample T0 exhibits higher electrical conductivity value i.e. 5.16  $\mu\text{M}/\text{cm}$  as compared to other due to addition of only NaCl solution while other leachate samples show the electrical conductivity value  $\approx 4$   $\mu\text{M}/\text{cm}$  except T4 (3.019  $\mu\text{M}/\text{cm}$ ).

**Table 7. The electrical conductivity value of leachates.**

S.N.	Sample Code	Electrical conductivity of leachates
2.	T0	5.160
3.	T1	4.201
4.	T2	3.987
5.	T3	3.019
6.	T4	4.094
7.	T5	3.381

Moreover, the entire six leachates samples (T0, T1, T2, T3, T4 and T5) were analyzed through ICP-OES analysis. Table 8 illustrates the leaching concentration of heavy metals. The obtained results insured that the significant metal concentration was recorded and found the below/lower as per regularity limits, Cr was not detected with in the leachates at any pH value while Co was present well within permissible limit at the acidic pH in case of leachate T1. While other hazardous heavy metals e.g. As, Ni, Cu and Pd were not detected in the leachates. Cd was also detected with negligible concentration, which also found within the permissible limit. Even, most of the metals concentrations were observed approximately negligible. The leaching of Ca and B was increased as per ASTM method in comparison of digestion method applied for raw

EAF slag analysis. This trend of more Ca leaching is observed due to free lime, and hydrated calcium silicate. These compounds might be removed or bound during filtration in digestion process (Dayloglu et al. 2018).

**Table 8. ICPMS analysis of six leachates sample.**

S.N.	Elements/Metals	Concentration (ppm)					
		T0	T1	T2	T3	T4	T5
1.	As(II)	0	0	0	0	0	0
2.	Mo	0.059	0.065	0.0558	0.0552	0.0585	0.0632
3.	Mg	0	0	0	0	0	0
4.	Cr (VI)	0	0	0	0	0	0
5.	Mn	0	0	0	0	0	0
6.	Fe	0	0	0	0	0	0
7.	Co	0.0025	0	0	0	0	0
8.	Ni	0	0	0	0	0	0
9.	Cu	0	0	0	0	0	0
10.	Zn	0.0004	0.0005	0.0005	0.0005	0.0007	0.0006
11.	Cd	0.003	0.002	0.0033	0.0034	0.0035	0.0036
12.	Pb	0	0	0	0	0	0
13.	Ca	107.0408	73.8859	63.8252	70.2740	94.6655	100.0879
14.	B	1.7124	1.4179	1.2754	2.1474	1.1243	0.4482
15.	Ba	0.1422	0.127	0.1139	0.1128	0.1708	0.1780

### 3.2.2 Toxicity characteristics leaching procedure (TCLP) method

Table 9 illustrates the pH, electrical conductivity (EC), and ICPOES analysis. pH values of leachates were found alkaline, which is due to the more heavy metals leaching at pH 2.88. The ICP-OES test results for different leachates are presented in Table 10. B and Ba exhibit the maximum concentration of leached out hazardous metals. The leaching of heavy metals found more in leachate sample P2, which is also the reason for more electrical conductivity of this sample. However, the concentrations of all metals did not exceed the regulatory limit of TCLP test. The obtained results represent that there are no hazardous metal leaches out from the EAF slag at both pH = 4.93 and 2.88. However, leaching concentration of Ca was increased as per TCLP method in comparison of ASTM and Batch method.

**Table 9. pH and Electrical Conductivity of TCLP leachates.**

Leachates Sample	pH	Electrical Conductivity
P1	11.72	69.5
P2	11.69	72.6

Table 10. ICPOES results of two leachates sample.

S.N.	Elements/Metals	Concentration (ppm)	
		P1	P2
1.	As(II)	0	0
2.	Mo	0.0495	0.0428
3.	Mg	0.0163	0
4.	Cr (VI)	0.0070	0.0059
5.	Mn	0	0
6.	Fe	0	0
7.	Co	0	0
8.	Ni	0	0
9.	Cu	0	0
10.	Zn	0	0
11.	Cd	0.0033	0.0033
12.	Pb	0	0
13.	Ca	442.8007	476.8342
14.	B	0.2616	0.3874
15.	Ba	0.3258	0.7681

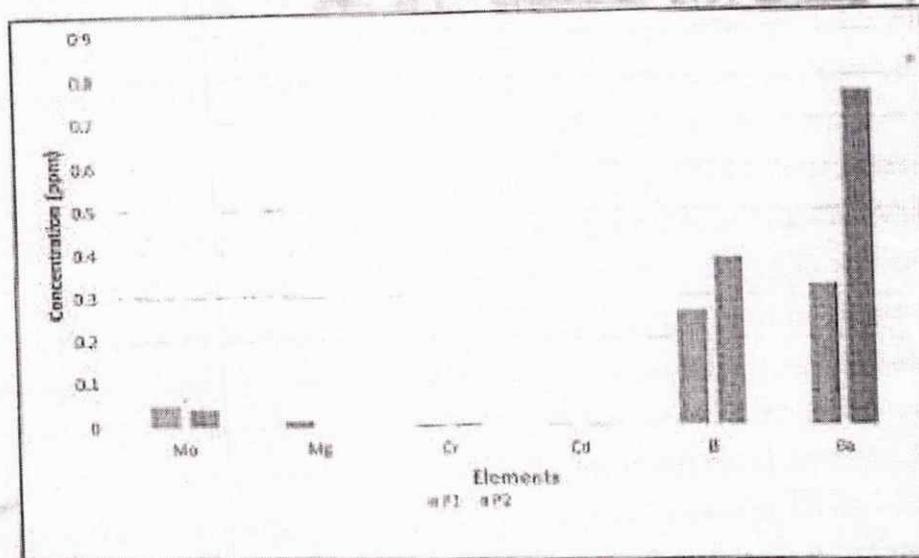


Figure 7: Toxic heavy toxic metal concentration with TCLP method.

Figure 7 shows the leaching concentration of different heavy metals from P1 and P2 samples.

### 3.2.3 Batch method

Batch test has been employed for the leaching test of EAF slag at various pH = 4, 5 and 6. Effect of leaching duration such as 5 days, 10 days, 15 days, 30 days, 45 days, and 60 days has investigated. Table 11 represents the pH and electrical conductivity of different leachates samples after leaching duration mentioned above. For all three

different pH, leachates followed a trend of pH increment with increasing number of leaching test. While electrical conductivity also followed same pattern of increasing values with increasing number of days. The ICP-OES results for different pH 6, 5 and 4 are comprises within table 12, 13 and 14 respectively. As, Mn, Pb, Ni, Cu, Fe, Ba, Ni and Zn were not detected during the analysis, however at pH 5 very less concentrations of Cr, Cd, Mg and Mn were detected. It was observed that more leaching of Cr takes place at pH 4 in comparison to pH 5 and pH 6, this is due to tendency of Cr leaching at lower pH. Chromium is a redox sensitive element which is more relevant at alkaline medium. At higher pH,  $Ba(S, Cr)O_4$  phase control the Cr solubility. However, surface adsorption and solid solution formation with Ca-contain minerals (e.g. ettringite) are major factor for leaching of Cr at alkaline medium that's why Cr is leached higher at pH = 4 than pH 5 and 6 (Quina et al. 2009). Therefore, leaching of Cr at pH 4 increased with the increasing number of days while at pH 5 and pH 6, it does not leached out or partially leached out after 10 days of leaching. However, in case of slag exposure in acidic environment for long period of time, slag may not leach out beyond permissible limit due to presence of Cr in slag in the range of permissible limit (250 ppm) as per IS:383-2016. Ni was not leached out at pH 4 and pH 5 but negligible concentration was detected at pH 6. Cd was detected in a constant manner with pH range and number of days of leaching, which is also well within the permissible limit. Leaching of calcium found maximum at pH 4 while at pH 6 it was decreased. Leaching of Mg was found maximum at pH 5. However, at every pH value and number of days of leaching, calcium and magnesium leaching was found under the recommended limit. The presence of free lime and free magnesia is the reason of calcium and magnesium leaching from EAF slag. Cd, B, Co and Mo leached at all pH and number of days of leaching. However, leaching concentration of these hazardous metals was well within the range of safety norms. Leaching of As, Zn and Mn were not observed at any pH while Barium was leached maximum at pH 6 and early days of 5 and 10. Other metals like, Cd, Co, Mn, Ni and Cu found in trace at each pH and leaching duration. From the outcome of the ICP-OES analysis, it was concluded that no hazardous metals leach out from the EAF slag beyond the permissible limits.

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Table 11. pH &amp; Electrical Conductivity of leachates samples from batch method.

Duration	At pH 4		At pH 5		At pH 6	
	Leachates pH	Leachates EC ( $\mu\text{S/cm}$ )	Leachates pH	Leachates EC ( $\mu\text{S/cm}$ )	Leachates pH	Leachates EC ( $\mu\text{S/cm}$ )
5 days	8.05	199.9	8.70	102.8	8.52	121.8
10 days	8.14	170.5	9.07	112.3	8.59	118.1
15 days	8.10	175.0	8.12	189.2	9.48	120.1
30 days	8.33	247.0	8.19	225.0	7.92	144.3
45 days	9.73	251.0	9.89	243.0	8.79	218.0
60 days	9.75	240.0	9.87	257.0	8.27	263.0

Table 12. ICPOES results of four leachates samples at pH = 4.

S. N.	Elements/Metals	Concentration (ppm)					
		B1	B2	B3	B4	B5	B6
1.	As(II)	0	0	0	0	0	0
2.	Mo	0.0037	0.0023	0.0015	0	0	0
3.	Mg	0.2695	0.2860	0.5100	3.9046	4.2523	4.6541
4.	Cr (VI)	0	0.0007	0.0061	0.0167	0.0467	0.0760
5.	Mn	0	0	0	0	0	0
6.	Fe	0	0	0	0	0	0
7.	Co	0.0009	0.0014	0.0005	0.0001	0.0016	0.0012
8.	Ni	0	0	0	0	0	0
9.	Cu	0	0	0	0	0	0
10.	Zn	0	0	0	0	0	0
11.	Cd	0.0040	0.0039	0.0038	0.0038	0.0037	0.0036
12.	Pb	0	0	0	0	0	0
13.	Ca	44.7382	36.6076	27.5867	42.7798	34.2386	44.132
14.	B	0.1735	0.2121	0.5825	0.3725	0.5251	0.721
15.	Ba	0	0	0	0	0	0

75 years of

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**Table 13. ICPOES results of three leachates samples at pH = 5.**

S. N.	Elements/Metals	Concentration (ppm)					
		C1	C2	C3	C4	C5	C6
1.	As(II)	0	0	0	0	0	0
2.	Mo	0.0023	0.0027	0	0	0.0022	0.0034
3.	Mg	0.2158	0.1610	3.9710	2.642	5.463	4.721
4.	Cr (VI)	0	0.0024	0	0	0.003	0
5.	Mn	0	0	0	0	0	0
6.	Fe	0	0	0	0	0	0
7.	Co	0	0.0018	0.0006	0	0.0007	0.0013
8.	Ni	0	0	0	0	0	0
9.	Cu	0	0	0	0	0	0
10.	Zn	0	0	0	0	0	0
11.	Cd	0.0038	0.0038	0.0041	0.0044	0.0047	0.0052
12.	Pb	0	0	0	0	0	0
13.	Ca	27.8146	34.5171	31.1143	32.7682	36.8561	35.9643
14.	B	0.2257	0.2440	0.3755	0.4244	0.4122	0.4967
15.	Ba	0	0	0	0	0	0

**Table 14. ICPOES results of six leachates samples at pH = 6.**

S. N.	Elements/Metals	Concentration (ppm)					
		D1	D2	D3	D4	D5	D6
1.	As(II)	0	0	0	0	0	0
2.	Mo	0.0028	0.0046	0.0022	0.3972	0.0013	0
3.	Mg	0.79	0.3268	0.9605	0	0.8927	3.0509
4.	Cr (VI)	0	0.002	0	0.0016	0	0
5.	Mn	0	0	0	0	0	0
6.	Fe	0	0	0	0	0	0
7.	Co	0.0020	0.0024	0.0027	0.0007	0.0005	0.0013
8.	Ni	0	0	0	0.0005	0	0
9.	Cu	0	0	0.0012	0	0	0.0011
10.	Zn	0	0	0	0	0	0
11.	Cd	0.0042	0.0041	0.0040	0.0042	0.0041	0.0039
12.	Pb	0	0	0	0.0073	0	0
13.	Ca	18.4263	21.2090	29.3754	23.0201	16.7446	36.3861
14.	B	0.4632	0.5592	0.3018	0.3652	0.3154	0.3942
15.	Ba	0	0	0	0	0	0

From the observed ICPOES data of the leachates it can be concluded that EAF slag does not leach any hazardous metals/elements. For the comparison purpose, Table 15 demonstrates comparative analysis of elution concentration with the standard

RW/NH-34066/09/2017-S&R (B)  
 GOVERNMENT OF INDIA  
 MINISTRY OF ROAD TRANSPORT & HIGHWAYS  
 S&R -(Bridges)  
 Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated: 21.07.2020

To,

1. The Chief Secretaries of all the State Governments / UTs.
2. The Principal Secretaries / Secretaries of all States / UTs Public Works Department dealing with National Highways, other Centrally sponsored schemes.
3. The Engineers-in-Chief and Chief Engineers of Public Works Department of States/UTs dealing with National Highways, other Centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, Delhi 110010.
5. The Chairman, National Highways Authority of India, Plot G-5 & 6, Sector-10, Dwarka, New Delhi 110075.
6. The Managing Director, NH/DCL, PTI Building, Parliament Street, New Delhi 110001

Sub: Use of Manufactured aggregates in National Highways works - reg.

Sir,

All coarse and fine aggregates conforming to IS:383 are used in all civil works for National Highways. The use of manufactured aggregates (manufactured from other than natural sources, by processing materials, using thermal or other process such as separation, washing, crushing and scrubbing) namely Iron slag, steel slag, copper slag, bottom ash from thermal power plants, recycled concrete aggregates (RCA) and recycled aggregate (RA) (both resourced from construction and demolition wastes), has already been introduced vide clauses 3.1.4 and 3.2 of IS:383-2016. It is, however, brought to the notice of the Ministry that the contractors find difficulty to use aforesaid alternative aggregates mainly due to non-revision of concerned clauses in IRC codes/special publications or Ministry's specifications.

2. It is therefore decided that all contractors are allowed to use all aforesaid manufactured aggregates conforming to IS:383-2016 subject to their extent as permitted under clause 4.2.1 of IS:383-2016. However, all the aforesaid manufactured aggregates cannot be used in prestressed concrete. Till appropriate revision of IRC or Ministry's codes/specifications, this circular should be made part of Schedule D of bids for all NH works, after issue of this circular.

3. The contents of this Circular may please be brought to the notice of all the Concerned in your Organization for strict implementation. This circular will be implemented from the date of its issue.

4. This issues with the approval of the Competent Authority.

Yours faithfully,

*M. Kumar*

(Jitendra Kumar)  
 SE-S&R(Bridges)  
 For Director General (RD)&SS

P.T.O

**Copy to:**

1. All Technical Officers in the Ministry of Road Transport & Highways.
2. All Joint Secretaries in the Ministry of Road Transport & Highways.
3. All ROs & ELOs of the Ministry of Road Transport & Highways.
4. The Secretary General, Indian Roads Congress - with the request to inform the concerned IRC committee for incorporating it under all relevant clauses of concerned IRC codes/special publications.
5. The Director, IAHE.
6. Technical circular file of S, R&T (B) Section.
7. NIC for uploading on Ministry's website.

**Copy for kind information to:**

1. PS to Hon'ble Minister (RT&H, MS&ME) / PS to Hon'ble MOS (RT&H).
2. Sr. PPS to Secretary (RT&H).
3. PPS to DG (RD) & SS.
4. PPS to AS & FA/ADG-I.

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# महाराष्ट्र प्रदूषण नियंत्रण मंडळ

## प्रादेशिक कार्यालय, रायगड

फोन नं: २७५७ ६०४०

फॅक्स नं: २७५६२१३२



“आपली सेवा आमचे कर्तव्य”

रायगड भवन, द्वा मजला,  
सेक्टर-११, सी.बी.डी.बेलापूर,  
नवी मुंबई- ४०० ६१४.

जा.क्र./प्राकार/मा.अ./२०२४/२४०२१६-एफटीएस-००५६

दिनांक : १६.०२.२०२४.

प्रति,

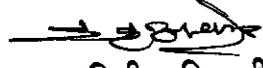
सौ. समिता राजेंद्र पाटील,  
सुलभासदन, प्रभुआळी, पेण,  
ता. पेण, जि. रायगड

विषय:- माहितीचा अधिकार अधिनियम २००५ अंतर्गत अर्जाबाबतची माहिती.

- संदर्भ:- १. आपला माहितीचा अधिकार अधिनियम २००५ अंतर्गत अर्ज दि.  
२९.०१.२०२४ (आवक क्र. २४०२०१-एफटीएस-०१८८).  
२. उप-प्रादेशिक अधिकारी, रायगड-२ यांच्याकडून प्राप्त झालेली माहिती  
दि. १६.०२.२०२४.

वरील विषयाच्या अनुषंगाने या कार्यालयास आपला माहितीचा अधिकार अधिनियम, २००५ अंतर्गत अर्ज दि. २९.०१.२०२४ (आवक क्र. २४०२०१-एफटीएस-०१८८) रोजी प्राप्त झाला होता. आपण मागितलेल्या अर्जाची माहिती उप-प्रादेशिक अधिकारी, रायगड-२ यांच्याकडून प्राप्त झालेली असून आपल्या माहितीसाठी सोबत जोडत आहे.

सोबत - वरील प्रमाणे

  
जन माहिती अधिकारी तथा  
उप प्रादेशिक अधिकारी,  
प्रादेशिक कार्यालय, रायगड

प्रत माहितीसाठी सादर:-

१. प्रथम अपिलीय अधिकारी तथा प्रादेशिक अधिकारी, म.प्र.नि. मंडळ, रायगड.

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महाराष्ट्र प्रदूषण नियंत्रण मंडळ  
उप प्रादेशिक कार्यालय, रायगड - २

फोन नं. : २७५७ ६०४०  
फॅक्स नं. : २७५६ २१३२



“आपली सेवा आमचे कर्तव्य”

रायगड भवन, ६ वा मजला,  
सेक्टर - ११, सीबीडी, बेलापूर,  
नवी मुंबई - ४०० ६१४.

जा.क्र./उपप्राकारा-२/ मा.अ./२०२४/२४०२१६१-FTS-००४६१

दिनांक: १६/०२/२०२४

प्रति,  
माहिती अधिकार तथा  
उप प्रादेशिक अधिकारी, म. प्र. नि. मंडळ,  
रायगड

विषय: माहिती अधिकार अधिनियम २००५ अंतर्गत अर्ज.

संदर्भ: १. सौ. समिता राजेंद्र पाटील, सुलभासदन, प्रभुआळी, पेण, ता. पेण, जि. रायगड  
यांचा दि. २९.०१.२०२४ रोजीचा माहिती अधिकार अधिनियम, २००५ अंतर्गत अर्ज.  
२. जन माहिती अधिकारी तथा उप प्रादेशिक अधिकारी, म. प्र. नि. मंडळ, रायगड यांचा  
ई-मेल दि. ०६.०२.२०२४.

जन माहिती अधिकारी, म. प्र. नि. मंडळ, रायगड यांच्याकडून अर्जदार सौ. समिता राजेंद्र पाटील, सुलभासदन, प्रभुआळी, पेण, ता. पेण, जि. रायगड यांचा माहिती अधिकार अधिनियम, २००५ अंतर्गत अर्ज या कार्यालयास प्राप्त झाला आहे.

सदर अर्जाच्या अनुषंगाने आवश्यक असलेली मुद्देनिहाय माहिती खालीलप्रमाणे आहे.

अनु. क्र.	प्रश्न	उत्तर
१.	दि. ०५.०७.२०२१ रोजी श्री. कैलाश आनेराव यांनी ट्विटर वरून केलेल्या तक्रारी संदर्भात केलेल्या कारवाईचा संपूर्ण तपशील असणारी फाईल/नस्ती मिळावी. (संदर्भ नोटीस - Regional Office, Raigad कडून दि. ०४.०८.२०२१ रोजी दिलेली नोटीस No. BO / RO-Raigad / SCN /TB 2108040007)	प्रत सोबत जोडली आहे.

  
(रा. सं. कामत)

उप प्रादेशिक अधिकारी, रायगड-२

प्रत माहितीसाठी सादर:-

अपिलीय अधिकारी तथा प्रादेशिक अधिकारी, म.प्र.नि. मंडळ, रायगड.

**MAHARASHTRA POLLUTION CONTROL BOARD**  
**SUB REGIONAL OFFICE-RAIGAD II**

Tel. No. 2757 2620  
 Fax No. 2756 2132  
 Email: [sroraigad2@mpcb.gov.in](mailto:sroraigad2@mpcb.gov.in)  
 Visit us at: <http://mpcb.gov.in>



"Your Service is our Duty"

Raigad Bhavan, 6th Floor,  
 Sec-11, C.B.D. Belapur,  
 Navi Mumbai 400 614.

No. MPCB/SROR-II/220214-FTS-0106

Date: 14/02/2022.

To,  
**Shri Kailash Aneroa,**  
**Raigad.**

**Sub : Complaint regarding Air, Water, Soil & Food Pollution caused by M/s.  
 Jindal Steel Works Ltd., Vill. Dolvi, Tal. Pen, Dist. Raigad.**

**Ref: Email received from CPCB dtd. 30.09.2021 (Complaint ID 12939).**

With reference to above captioned subject matter this office has received above complaint. The said complaint is against M/s. Jindal Steel Works Ltd., Vill. Dolvi, Tal. Pen, Dist. Raigad regarding Air, Water, Soil & Food Pollution caused due to highly toxic & radioactive fly ash dust being deposited in people's lungs by air, deposited far & wide into fertile agriculture lands, groundwater systems, water bodies, wells through recent floods.

Please note that the case OA 165/2020 is in NGT against M/s. Jindal Steel Works Ltd., Vill. Dolvi, Tal. Pen, Dist. Raigad regarding air, water & soil pollution. In the said NGT case, Hon'ble NGT has constituted five Members Joint Committee. to be headed by an officer of the rank of Joint Secretary, MoEF & CC, nominated by the Secretary MoEF & CC and comprising the CPCB, the IIT Mumbai, the District Magistrate, Raigad, the State PCB as Members and directed to submit the report to Hon'ble NGT. The matter is under sub judice.

This is for your information please.

(V. V. Killedar)

Sub Regional Officer Raigad-II

Copy submitted to:  
 Regional Officer, MPCB, Raigad.

Coy to:  
 Complaint Redressal Team, CPCB.

**Fw: Redressal public complaint received**

Seema Dalavi <srhq8@mpcb.gov.in>

Mon 10/4/2021 10:44 AM

To: K.R.Kulkarni <kalyani.kulkarni@mpcb.gov.in>

Madam,

Please enter this complaint.

---

From: Ashok A Shingare <ms@mpcb.gov.in>

Sent: 30 September 2021 16:18

To: Seema Dalavi <srhq8@mpcb.gov.in>

Cc: P.K. Mirashe <ast@mpcb.gov.in>

Subject: Fw: Redressal public complaint received

---

From: CPCB Twitter Team <twitter.cpcb@gov.in>

Sent: 30 September 2021 15:47

To: Ashok A Shingare <ms@mpcb.gov.in>

Subject: Redressal public complaint received

Respected Sir/Madam,

A Complaint has been received at CPCB through its Twitter Portal by **Kailash Anerao**

The contents of the complaint are as below:

Who is accountable for this air, water, soil & food pollution caused due to highly toxic & radioactive fly ash dust being deposited in people's lungs by air, deposited far & wide onto fertile agriculture lands, groundwater systems, water bodies, wells through recent floods??

The complaint id is 12939.

location- #Jindal power plant of #Raigad

complaint link- <https://twitter.com/AneraoKailash/status/1421733406195466246>

Kindly take appropriate action and update CPCB on the issue on [twitter.cpcb@gov.in](mailto:twitter.cpcb@gov.in), so that that the complainant can be informed about the action taken at the earliest.

Regards,

Complaint Redressal Team

CPCB



Exh 2793 (G)

G

**MAHARASHTRA POLLUTION CONTROL BOARD**  
Regional Office, Raigad

Phone: - (022) - 2757 6034  
Fax: - (022) - 2756 2132  
E-mail: - roraigad@mpcb.gov.in  
Website: - http://mpcb.gov.in



Raigad Bhavan, 6th Floor,  
Sec-11, C.B.D. Belapur,  
Navi Mumbai 400 614.

No.BO/RO-Raigad/SCN/TB-220201-FTS-0138 Date: 01.02.2022

To,  
M/s. JSW Steel Ltd.,  
Village Dolvi, Tal. Pen, Dist. Raigad,

Sub: Show Cause Notice for non-compliance of consent conditions.

- Ref: - 1. Board's consents.  
2. Compliant received from Sameer Shaikh vide email dated 19.01.2022.  
3. Visit of Board Officials to your unit on 29.01.2022.

WHEREAS, the Board has granted Consent to Operate to your integrated Steel Plant with certain term and conditions under section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016.

AND WHEREAS, you were under an obligation to provide adequate pollution control system for air and water & disposal arrangement for trade effluent to meet the standards prescribed by the Board in the consent order. You were under an obligation to dispose hazardous and non-hazardous waste as per conditions prescribed in the consent granted to you.

AND WHEREAS, This office is in receipt of complaint from Mr. Sameer Shaikh vide email dated 19.01.2022 regarding sale of hazardous and non-hazardous waste to unauthorized vendors. Accordingly, Board Officials visited your industry on 29.01.2022 and observed that as per Schedule-IV- List of commonly recyclable hazardous wastes such as the Insulated Copper Wire Scrap or copper with PVC sheathing, Waste Copper and copper alloys in dispersible form are disposed to M/s. Amirullah and Bros., Rohinjan Village, Panvel-Mumbra Rd., Panvel who don't have valid consent of the Board as well as authorization under H&OW Rule, 2016. M/s. Azizya Enterprises, Survey No. 53/1/C, Afzal Compound, Dahisar Mori, Mumbai-Panvel Rd., Thane having valid consent but not having authorization under H&OW Rule, 2016.

AND WHEREAS, Sub-Regional Officer, Raigad-II has submitted the report of above non-compliances.

AND WHEREAS, after examining the records of your case, the reports the official of the Board & after necessary inquiry, I am satisfied that you have made grave & sudden injury to the Environment. It shows that your negative attitude towards compliance of provision of various environmental enactments.

**NOW THEREFORE**, you are hereby directed to show cause as to why the legal action shall not be initiated under the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 and Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2016 against your unit.

You are hereby directed to submit your reply/objection to the aforesaid show cause notice within a period of seven days from the receipt of this letter. Failure which, Board will have no option then to initiate appropriate legal action against your unit, as may be deemed fit in your case, which may please be noted.

*(V. V. Killedar)*  
01/02/2022

(V. V. Killedar)  
Regional Officer, Raigad

Copy to-

Sub-Regional Officer, Raigad-II - MPCB, - They are requested to submit the present status of industry within 3 day period & ensure that SCN to be served to the industry.



EXHIBIT (H)  
2795

JSW Steel Limited

Dolvi Works: Geetapuram,  
Dolvi, Taluka - Pan,  
Dist Raigad - 402 107, Maharashtra, India.  
CIN : L27102MH1994PLG152925  
Phone : +91 2143 277501-15  
Fax : +91 2143 277533/42  
Website : www.jsw.in

JSWSL/ISP/ENV/MPCB/2022

February 7, 2022

To

The Regional Officer,  
Maharashtra Pollution Control Board,  
Raigad Bhavan, 6th Floor,  
Sector 11, CBD Belapur,  
Navi Mumbai - 400614.

Sub: Reply to Show Cause Notice for non-compliance of Consent conditions.

- Ref: 1) Your letter with Ref. No. BO/RO Raigad/SCN/TB-220201-FTS-0138 dated 01/02/2022.  
2) Complaint received from Sameer Shaikh vide email dated 19/01/2022 by MPCB.  
3) Visit of Board Officials to our unit on 29/01/2021/

Dear Sir,

With reference to above, we have received your above letter on 1<sup>st</sup> February 2022 through e-mail and we submit that M/s. JSW Steel Ltd., Dolvi is complying with the Consent to Operate conditions under section 26 of The Water (prevention and control of pollution) Act, 1974 and the Air (Prevention and control of pollution) Act 1981 and Authorization under Hazardous Wastes (Management & Transboundary Movement) Rules 2016 on regular basis.

And that, we have taken adequate control measures and installed pollution control devices and waste water treatment plants with one of the best available technologies at all units in our plant to control and prevent the pollution from all sources.

As per the complaint from Mr. Sameer Shaikh received by MPCB, we would like to inform that our company's sale record regarding disposal of Copper and Non-ferrous metal scrap, we have disposed the Copper and copper alloys generated from the plants are to the following parties as per the consent conditions.

1. M/s. Amirullah & Brothers, Rohinjan Village, Panvel - Mumbra Road, Panvel as per the Consent NO RO-Raigad/Consent/1703002075 Dated 31/03/2017 and the validity of the Consent is up to 31/12/2021. The copy of the said CTO is attached herewith for kind reference in Annexure I



Part of O. P. Jindal Group

Regd. Office : JSW Centre,  
Bandra Kurla Complex,  
Bandra (East), Mumbai - 400 051  
Phone : +91 22 4286 1000  
Fax : +91 22 4286 3000  
Website : www.jsw.in



2. M/s. Azizya Enterprises, Survey No 53/1/C, Afzal Compound, Opp Gausiya Market, Dahisar Mori, Mumbra – Panvel Road, Thane District as per the Consent NO SRO NAVI MUMBAI H/CONSENT dated --/01/2019 and the validity of the Consent is up to 31/05/2024. The copy of the said CTO is attached herewith for kind reference in Annexure 2

As per the above consent conditions, both the parties are authorized for segregation and sorting of Copper and non-ferrous metal scrap. Hence there is no non compliances as per the Consent conditions and also there is no Environmental damage due to this activity.

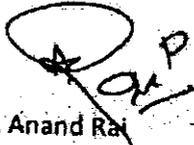
Also we are submitting the Hazardous wastes manifest in Form 4 (Annual Returns) & Form 10 (HW Manifest) to MPCB regularly as per the disposal of Hazardous Wastes (Management & Transboundary Movement) Rules 2016. Also Form 6 for E- wastes disposal and Bio Medical wastes disposal and the annual and six monthly returns are submitted to MPCB as per guidelines.

As per the Schedule 4 of Hazardous Wastes Rules, the Copper Scrap and Insulated Copper wire comes under the list of Hazardous wastes category. As per the letter received from your we will not dispose any type of hazardous wastes to the above parties and we will dispose the hazardous wastes to the only MPCB authorized parties in future.

The above clarifications stated hereinabove, we request you to kindly accept our reply and we would also like to assure you that we have not contravened any of the provisions of under section 26 of The Water (prevention and control of pollution) Act, 1974 and under section 21 of the Air (Prevention and control of pollution) Act 1981 and Authorization under Rule 6 of Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

Also we humbly request you to please do not initiate any legal action against our industry and kindly withdraw the show cause notice.

Thanking you,  
For JSW Steel Ltd., Dolvi

  
Dr. Anand Rai  
Associate Vice President (Head - Environment)

CC: Sub-Regional Officer, Raigad II, MPCB, CBD, Belapur, Navi Mumbai.

2797

Phone: 022-27576034  
022-27572520  
Fax: 022-27562132  
Email: roraigad@mpct.gov.in  
Visit At: http://mpct.gov.in

**POLLUTION CONTROL BOARD**  
Regional Office, Raigad, Bayan 6th floor, Sector  
110, B.D. Salapur  
New Mumbai - 400614

Ref/S.S.1

Date: 31-03-2017

Consent No: RC/Consent/2017/17030/2017

Consent to operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules 2008

[To be referred as Water Act, Air Act and HW(M&H) Rules respectively]

CONSENT is hereby granted to

M/s. Amirallah & Brothers  
Rohinjan Village, Post Tulaja, Panvel Mumbai Road,  
Tal. Panvel, Dist. Raigad.

located in the area declared under the provisions of the Water Act, Air Act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to operate is granted for a period up to: 31/12/2021.
2. The Consent is valid for the manufacture of -

S. No.	Particulars	Quantity	UOM
1	Segregation & Sorting of Domestic waste like plastic PVC Cables, Ferrous, Nonferrous Metal, HDPE, Carboys, Woods, Glass, Paper, Copper, Aluminium Scraps & Rubber sheets etc.	As Per Order	

(Industry should not recycle/reprocess waste covered under Hazardous waste (M & H) Rules 2008. Industry should not collect recycle/reprocess waste covered under E-Waste (Management and Handling) Rules 2011, and also Municipal Solid Waste (Management and Handling) Rules 2000. Also shall not carry washing of contaminated waste at the site without approval of the Board.)

**3. CONDITIONS UNDER WATER ACT:**

- (i) The daily quantity of trade effluent from the factory shall be Nil.
- (ii) The daily quantity of sewage effluent from the factory shall not exceed 1.5MB.
- (iii) Trade Effluent: N.A.
- (iv) Sewage Effluent Treatment: The applicant shall provide comprehensive treatment system as is warranted with reference to effluent quality and operate and maintain



the same continuously so as to achieve the quality of treated effluent to the following standards.

- (1) Suspended Solids
- (2) BOD 3 days @ 20°C
- (3) Sewage Effluent Disposal: The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow, if any, shall be used on land for gardening/plantation only.
- (iv) Non-Hazardous Solid Wastes:

Sr. No.	Type of Waste	Quantity	Treatment	Disposal
			N/A	

(v) Other Conditions: - Liquors shall be monitored regularly. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amendment Rules, 2003 there under.

The daily water consumption for the following categories is as under:

- (i) Domestic purpose: 20,000 L/day
- (ii) Water get: Polluted: 4000 L/day
- (iii) Water get: Polluted: 4000 L/day
- (iv) Industrial Cooling: 4000 L/day

The applicant shall file returns along with the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 7 of the said Act.

**5. CONDITIONS UNDER AIR ACT:**

(i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with a view to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

SPM/TSPM: Not to exceed 150 mg/m<sup>3</sup>

**a. Control Equipment:**

Air pollution control system of adequate capacity shall be provided to limit the process emission emissions.

**6. Conditions for D.G. Set: N/A.**

**7. Standards for Stack Emissions:**

(i) The applicant shall observe the following fuel pattern:

Sr. No.	Type of Fuel	Quantity	Treatment	Disposal
			N/A	

(ii) The applicant shall erect the chimney(s) of the following specifications:

Sr. No.	Capacity	Height	Material
			N/A



our applicants shall provide ports to the chimney(s) and facilities such as hoppers, platform(s) for monitoring the air emissions and the same shall be open for inspection (except for use of the Board's Staff. The chimney(s) vents attached to various sources of emissions shall be designated by numbers such as S-1, S-2, etc. and these shall be prominently displayed to facilitate identification.

(iv) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise, to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned to be between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.

(v) Other Conditions:

- 1) The industry should not cause any nuisance in surrounding area.
- 2) The industry should monitor ambient air quality regularly.

**8. CONDITIONS UNDER HAZARDOUS WASTE (MANAGEMENT, HANDLING & TRANSBOUNDARY MOVEMENT) RULES, 2008:**

(i) The industry shall handle hazardous wastes as specified below.

Sr. No.	Type Of Waste	Quantity (MT)	Disposal
1		NA	

(ii) Treatment: N/E.

1. The authorization is hereby granted to operate a facility for collection, storage, transport & disposal of hazardous waste.

2. The industry shall comply with the Hazardous Waste (M&H) Rules, 2008.

a. Whenever due to any accident or other unforeseen act or event such contingencies occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.

b. The unit has to display and maintain the data online outside the factory main gate in Marathi & English both on a fixed display board in the manner and the report of the computer along with photograph shall be submitted to this office & concerned Regional Office, Sub Regional Office.

c. It shall be ensured that the hazardous waste is handled, managed & disposed of strictly in accordance with the Hazardous Waste (Management & Handling) Rules, 2008 as amended on both and shown & submitted to the Board as & when asked for.

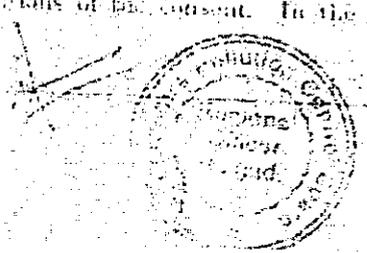
**9. Industry shall comply with following additional conditions:**

i. The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.

ii. The applicant shall bring minimum 5% of the available open land under green coverage/ tree plantation.

iii. Solid waste - The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of suitably so as not to cause any nuisance / pollution. The applicant shall obtain necessary permission from civil authorities for disposal to dumping ground.

iv. The applicant shall provide an adequate electric power source sufficient to operate all pollution control facilities installed by the applicant to maintain compliance with the terms and conditions of the consent. In the absence the



- v. applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
- vi. The applicant shall not change or alter quantity, quality, the rate of discharge or temperature of the mode of the effluent emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
- vii. The applicant shall provide facility for collection of environmental samples and samples of trade and service effluents, air emissions and hazardous wastes to the Board staff at the relevant collection points and shall pay to the Board for the services rendered in this behalf.
- viii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
- ix. The firm shall submit to the office by the 30<sup>th</sup> day of September every year, the Environment Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form V as per the provisions of rule 15 of the Environment Protection (Second Amendment) Rules, 1986.
- x. An inspection book shall be prepared and made available to the Board's officers during their visit to the applicant.

- 10. Board reserve right to revoke suspend or amend the consent issued.
- 11. The consent should not construed as exemption from obtaining necessary AOC from other Government Agencies as may deemed fit necessary.
- 12. The Capital investment of the industry is Rs. 23.70 Lakh.



FOR AND ON BEHALF OF M.P.C.B. BOARD

Dr. A.N. Shrivardhan  
Regional Officer, Raigad

To,  
M/s. Amirullah & Brothers  
Rohinjau Village, Post Talaja, Parcel Munbra Road,  
Tal. Pansel, Dist. Raigad.

Received Consent fee of -

S.No.	Amount	Particulars	Date	Signature
1	15000.00	ENVIRONMENTAL	11-11-2017	
2	6000.00	ENVIRONMENTAL	11-11-2017	

Copy to:  
Sub Regional Officer-I, MPC Board, Raigad  
He is directed to ensure compliance of consent conditions.

# 2801

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 022- 27572739

Fax : 022- 27576034

Email : [srnavimumbai@mpcb.gov](mailto:srnavimumbai@mpcb.gov)

Visit At : <http://mpcb.gov.in>



Sub Regional Office Navi Mumbai-II,  
Raigad Bhavan 7th Floor, Sector-11,  
CBD Belapur, Navi Mumbai - 400614

Green/S.S.I

Date: /01/2019

Consent No: SRO NAVI MUMBAI II/CONSENT/

Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

[To be referred as Water Act, Air Act and HW (M&H) Rules respectively].

CONSENT is hereby granted to

M/s. Azizya Enterprises,  
Survey No. 53/1/C, Afzal Compound,  
Opp. Gausiya Market, Dahisar Mori,  
Mumbra-Panvel Road, Dist- Thane.

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to: 31/05/2024.
2. The Consent is valid for the-

Sr. No.	Product Name	Maximum Quantity
1	Segregation & Sorting of Decontaminated items Like MS, & Plastic Drums, MS SS, PVC Scrap, Plastic PVC Pipes, PVC Cable Scrap, Wood, Glass, Paper Jute, Paper Box, Wooden & Decontaminated Cotton Waste, Empty Decontaminated MS & HDPE Drums, Electric Fuse, Iron Scrap, Ferrous & Non Ferrous Metal Scrap, Rubber Sheet, Copper Insulated & Armed Wire, Jute Cable And FRP Scrap	As per order

(Without washing, use of any type of chemical activity & without handling of any type of hazardous waste.)

**3. CONDITIONS UNDER WATER ACT:**

- (i) The daily quantity of trade effluent from the factory shall be Nil.
- (ii) The daily quantity of sewage effluent from the factory shall not exceed 0.8 M<sup>3</sup>.
- (iii) Trade Effluent Treatment - Nil.
- (iv) Trade Effluent Disposal: N.A.

MPCB-CONSENT-0000062495

1

(v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.

(1)	Suspended Solids	Not to exceed	100	mg/l.
(2)	BOD 3 days 27° C.	Not to exceed	100	mg/l.

(vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow, if any, shall be used on land for gardening / plantation only.

(vii) **Non-Hazardous Solid Wastes:**

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
-NA-				

(viii) **Other Conditions:** Industry should monitor effluent quality regularly.

4. The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amendment Rules, 2003 there under

The daily water consumption for the following categories is as under:

(i)	Domestic purpose	...	1.00	CMD
(ii)	Water gets Polluted & Pollutants are Biodegradable	...	0.00	CMD
(iii)	Water gets Polluted, Pollutants are not Biodegradable/For Mfg	...	0.00	CMD
(iv)	Industrial Cooling, spraying in mine pits or boiler feed	...	0.00	CMD
(v)	Gardening/Agriculture/	.....	0.00	CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

5. **CONDITIONS UNDER AIR ACT :**

(i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

a. **Control Equipment:**

Industry shall provide dust collector of sufficient capacity to control the emissions.

6. **Conditions for D.G. Set : N.A.**

7. **Standards for Stack Emissions:**

(i) The applicant shall observe the following fuel pattern:-

Sr. No.	Type Of Fuel	Quantity	UOM
N.A			

MPCR-CONSENT-0000062496



*[Handwritten Signature]*  
30/1/2019  
2

(iii) The applicant shall erect the chimney(s) of the following specifications:-

Sr. No.	Chimney Attached To	Height in Mtrs.
---------	---------------------	-----------------

N.A

- (iii) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- (iv) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- (v) Other Conditions:
- 1) The industry should not cause any nuisance in surrounding area.
  - 2) The industry should monitor ambient air quality Regularly.

8. Conditions under Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016

- (i) The Industry shall not generate any type of hazardous wastes.

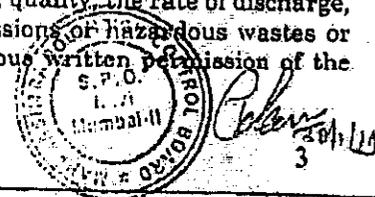
Sr. No.	Type Of Waste	Quantity	UOM	Disposal
---------	---------------	----------	-----	----------

- a. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.

9. Industry shall comply with following additional conditions:

- i. The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
- ii. The applicant shall bring minimum 33% of the available open land under green coverage/ tree plantation.
- iii. Solid waste - The non hazardous solid waste arising in the factory premises, sweepings, etc., be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal to dumping ground.
- iv. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
- v. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent / emissions of hazardous wastes or control equipments provided for without previous written permission of the Board.

MPCB-CONSENT-0000062496



- vi. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
  - vii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
  - viii. The firm shall submit to this office, the 30<sup>th</sup> day of September every year, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
  - ix. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
  - x. The applicant shall install a separate electric meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
  - xi. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes / sewers down stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
  - xii. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
10. This consent should not be construed as exemption from obtaining necessary NOC/permissions from any other Government Agencies as may be deemed fit necessary.
  11. Board reserves right of revoke, suspend or amend the consent issued.
  12. Consent is granted as per the minutes of 8<sup>th</sup> industry Categorization Committee meeting held on 01/03/2017.
  13. The Capital investment of the industry is Rs. 08.51 Lacs.

For & on behalf of

Maharashtra Pollution Control Board



*(Signature)*  
30/11/2018  
(T.G. Yadav)

Regional Officer, Navi Mumbai-II

To,  
M/s. Azizya Enterprises,  
Survey No. 53/1/C, Afzal Compound,  
Opp. Gausiya Market, Dahisar Mori,  
Mumbra-Panvel Road, Dist- Thane.

Received Consent fee of -

Sr. No.	Amount(Rs.)	Transaction No.	Date	Drawn On
1	4500.00	TXN1812002049	19/12/2018	E-payment

Copy Submitted to:  
Regional Officer, MPC Board, Navi Mumbai.

MPCB-CONSENT-0000062495



2. It is also observed that water used for blast furnace slag cooling was overflowed and goes into storm water drain which further meet to Amba River in Dharamtar Creek.
3. Improper raw water utilization for cooling tower was observed causing wastage of water which goes into Dharamtar Creek through storm water drain.
4. Raw material spillages were observed from conveyer belt resulting fugitive emission within the plant premises.
5. Blackish-brown fugitive emissions were observed from Blast furnace plant (3.5 MTPA capacity) resulting air pollution in the area.
6. Spillage of blast furnace slag from conveyer belt was observed near cement plant area which mixed into storm water drain.

AND WHEREAS, Sub-Regional Officer, Raigad-II has submitted the action proposal due to above non-compliances.

AND WHEREAS, after examining the records of your case, the reports the official of the Board & after necessary inquiry, I am satisfied that you have made grave & sudden injury to the Environment. It shows that your negative attitude towards compliance of provision of various environmental enactments.

NOW THEREFORE, you are hereby directed to show cause as to why the legal action shall not be initiated under the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 and Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2016 against your unit.

You are hereby directed to submit your reply/objection to the aforesaid show cause notice within a period of seven days from the receipt of this letter. Failure which, Board will have no option then to initiate appropriate legal action against your unit, as may be deem fit in your case, which may please be noted.

*D. V. Killekar*  
(V. V. Killekar)  
Regional Officer, Raigad

Copy to-

Sub-Regional Officer, Raigad-II - MPCH.- They are requested to submit the present status of industry within 3 day period & ensure that SCN to be served to the industry.

2807 (J)

JSW

c/c

Dolvi Works:  
Geetapuram,  
Dolvi, Taluka - Pen,  
Dist Raigad - 402 107, Maharashtra, India.  
CIN. : L27102MH1994PLC152925  
Phone : +91 2143 277501-15  
Fax : +91 2143 277533/42  
Website : www.jsw.in

JSWSL/ENV/MPCB/2022

17<sup>th</sup> February 2022

To

The Regional Officer, Raigad,  
Maharashtra Pollution Control Board,  
Raigad Bhavan, 6th Floor,  
Sector 11, CBD, Belapur,  
Navi Mumbai - 400 614.

Sub: Reply to Show cause notice for non-compliance of Consent Conditions

- Ref: i) Your letter No. BO/RO-Raigad/SCN/TB-2202110004 dated 11/02/2022.  
ii) Board's consent no Format No 1/CAC/UAN No.0000108919-CO-2109000621 dated 17/09/2021 which is valid up to 30/04/2022.  
iii) Visit of Board Officials in our unit on 29/01/2022.

Dear Sir,

We acknowledge the receipt of your letter dated 11/02/2022 through your email dated 11/02/2022. Our point wise reply to the letter referred above is submitted as under:

That, we have been granted Consent to Operate for our different plants of Integrated Steel plant under the conditions under section 26 of The Water (Prevention & Control of Pollution) Act 1974, The Air (Prevention & Control of Pollution) Act 1981 and Hazardous & other Wastes (Management & Transboundary Movement) Rules 2016. As per the Consent conditions we have taken adequate control measures and installed pollution control devices and treatment plants with best available technologies in all units in our plant to control and prevent pollution from all sources. JSW Steel Ltd., Dolvi is complying to the stipulated Consent conditions from time to time.

As per your letter, the complaints received from Shri. Vishwas Pandurang Koil and Others, of Village Kolve, dated 12/01/2022 and Shri. Manohar Kamlakar Patil from Ghaswad Shahabaj dated 17/01/2022 is not acceptable by our industry regarding air pollution and discharge of chemical mix water and sand dredging activity in Dharamter creek caused by our industry. Our industry is not doing any sand dredging activity in the Dharamter creek.

We also assuring you that we are taking all precautionary steps to control air pollution and water pollution and avoid environment contamination in nearby villages.

JSW Steel Limited  
Dolvi, Pen-Raigad.  
22 FEB 2022  
[Signature]



JINDAL Part of O.P. Jindal Group

Regd. Office: JSW Centre,  
Bandra Kurla Complex,  
Bandra (East), Mumbai - 400 051.  
Phone : +91 22 4286 1000  
Fax : +91 22 4286 3000



As per the visit report of your officials in our plant on 29/01/2022, the pointwise observations and clarifications are submitted for kind reference.

1. You have provided STP having capacity 15 CMD, 120 CMD and 60 CMD and all found in operation. However, the treated domestic effluent of 60 CMD STP was overflowed and mixed into storm water drain which further meet to Amba River in Dharamtar Creek.

On 29<sup>th</sup> January 2022, the treated water from STP 60 CMD was having minor leakage of pipeline of treated water. The same was tightened and arrested the overflowing of water on the same day. Presently there is no leakages from 60 CMD STP into storm water drain.

2. It is also observed that water used for Blast Furnace slag cooling was overflowed and goes into storm water drain which further meet to Amba River in Dharamtar Creek.

The cooled moist Blast furnace slag is transported from Blast furnace to Cement plant through conveyor systems. At cooling site, the excess water coming out from the BF slag is clean water and it will not harm the environment. However we have taken steps by collecting and reuse.

3. Improper raw water utilization for cooling tower was observed causing wastage of water which goes in to Dharamtar creek through storm water drain.

The cooling tower blowdown water generated from the plants are reused for slag quenching and slag cooling purpose and hence there is no wastage of water from the plant. However, during your visit, the inlet pipe line of cooling tower had got punctured and was being repaired on the same day and presently there is no wastage of water.

4. Raw material spillages were observed from conveyor belt resulting fugitive emissions within the plant premises.

Raw material handling area, all the conveyor belts are through covered sheds and hence there is little possibility of spillages also all the transfer points and junction houses have been provided with dust suppression / dry fogging and dust extraction systems according to the type of raw material.

However, the plants under Phase II of the Raw Material Handling System, the project work is under commissioning stage and concurrently the de-dusting systems is being commissioned to control the fugitive emissions and will be completed by end of March 2022.

5. Blackish –brown fugitive emissions were observed from Blast Furnace plant (3.5 MTPA Capacity) resulting air pollution in the area.

There are slight fugitive emissions observed from Blast Furnace during tapping of Hot Metal. We have provided dedusting systems with bag houses which is connected with Cast House that prevents the dust emissions during tapping of Hot metal. The damper of





the dedusting systems opens immediately after tapping and the dust is extracted in to the Cast House de-dusting system. This is a standard and regular practice for all blast furnaces. However momentary puffing was observed during the tapping which is not a regular phenomenon.

6. Spillage of Blast Furnace slag from conveyor belt was observed near cement plant area which mixed into storm water drain.

The Blast Furnace slag is directly send to the Cement plant from Slag granulation plant of Blast Furnace through the closed conveyor system. We have arrested the spillage of slag from the junction houses. Also regular cleaning of the junction houses is being carried out. Hence there is no possibility of Blast furnace slag spilling into storm water drain. Further the evacuation of slag from local dumping area will be made by deploying additional equipment.

From the clarifications stated herein above, we request you to kindly accept our submission and further most we would also like to assure you that we have not contravened any of the provisions of under section 26 of The Water (prevention and control of pollution) Act, 1974 and under section 21 of the Air (Prevention and control of pollution) Act 1981 and Authorization under Rule 6 of Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

Also it is our humble request you to please withdraw the show cause notice issued against our industry.

Thanking you,  
For JSW Steel Ltd., Dolvi

Dr Anand Rai  
General Manager (Head - Environment)

CC: Sub-Regional Officer, Raigad II, MPCB, CBD, Belapur, Navi Mumbai.



<b>MAHARASHTRA POLLUTION CONTROL BOARD</b>		
<b>Regional Office, Raigad</b>		
Phone: - (022) - 2757 6034 Fax: - (022) - 2756 2132 E-mail: - roraigad@mpcb.gov.in Website: - http://mpcb.gov.in		Raigad Bhavan, 6th Floor, Sec-11, C.B.D. Belapur, Navi Mumbai 400 614.

No.BO/RO-Raigad/SCN/TB- 221180031

Date: 18.11.2022

To,  
**M/s. Amba River Coke Limited.**  
**(Coke Oven Plant-1.0 MTPA)**  
**Village Dolvi, Tal. Pen, Dist. Raigad,**

Sub: Show Cause Notice for non-compliance of consent conditions.

- Ref - 1. Board's consent no Format no.1BO/CAC-Cell/UAN No. 0000024004-17/CAC-1803000008 dated 01.03.2018 which was valid upto 31.05.2022.  
 2. Visit of Board Officials to your unit on 04.05.2022 and 05.05.2022.  
 3. Action proposal received from SRO, Raigad-II dated 18.11.2022.

**WHEREAS**, the Board has granted Consent to Operate to your **Amba River Coke Plant-1.0 MTPA** with certain term and conditions under section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016.

**AND WHEREAS**, you were under an obligation to provide adequate pollution control system for air and water & disposal arrangement for trade effluent to meet the standards prescribed by the Board in the consent order. You were under an obligation to operate and maintain the ETP and the pollution control devices effectively, so as to achieve standards prescribed in the consent granted to you.

**AND WHEREAS**, The Officials of Regional Directorate-Pune, CPCB and Regional Office, Raigad, MPCB had jointly carried out ambient air quality monitoring, stack monitoring, fugitive emission monitoring and effluent water sampling on 04.05.2022 and 05.05.2022 at following locations;

- A) Ambient Air Quality Monitoring were carried out at 03 locations for 24 hrs. viz: 1) Near K.E.S. Madhyamik Vidyamandir (South, South-West of M/s. JSW Steel Ltd) Village Shahabaj, Tal. Alibag, Dist. Raigad, 2) On Roof top of residence of Shri Dilip Kothekar (South-Eastern side of M/s. JSW Steel Ltd). Village Gadab, Tal. Pen, dist. Raigad and 3) Near Labour colony of M/s. JSW Steel Ltd (Northside of M/s. JSW Steel Ltd) Village Dolvi, Tal. Pen, Dist. Raigad.
- B) Stack Monitoring carried out at 05 locations, viz. 1) Stack attached to kiln of lime calcination plant- 2 (600 TPD) 2) Stack attached to sinter machine & de-dusting (sintering plant-1), 3) Stack attached to product discharge end & product sinter sizing house (sintering plant-1) 4) Stack attached to furnace of pellet plant-I (4 MTPA) and 5) Common stack attached to de-dusting system- 1 & 2 of pellet plant-I (4 MTPA)
- C) Fugitive Emission monitoring carried out at 03 locations in Coke Oven Plant-1, viz. 1) Near Quenching Tower, 2) Coke oven area (other area) and 3) at Near Coke pushing side.

- D) Water sampling was carried out at 03 locations viz. 1) ETP Inlet and ETP Outlet of Coke Oven Plant-1, 2) ETP outlet of Sponge Iron Plant and 3) Creek Water Sample Near Kasumata Temple (Western side of M/s. JSW Steel Ltd).

AND WHEREAS, This office has received the analysis results of ambient air quality monitoring, stack monitoring, fugitive emission monitoring and effluent water sampling of above locations and observed that

1. The JVS results of 24 hrs Ambient Air Quality Monitoring at 03 locations were exceeded for the parameter PM10 viz. 1) Near K.E.S. Madhyamik Vidyamandir- 145.66 ug/m<sup>3</sup> 2) On Roof top of residence of Shri Dilip Kothekar- 403.66 ug/m<sup>3</sup> and 3) Near Labour colony of M/s. JSW Steel Ltd- 169 ug/m<sup>3</sup> against the NAAQ standards 100 ug/m<sup>3</sup>.
2. The JVS results of water sample collected at 03 locations. Out of 03 JVS samples, one JVS sample of ETP outlet of Coke Oven Plant-1 was exceeded for the parameter BOD- 38 mg/l and TDS- 2384 mg/lit against the consent standards 30 mg/l and 1500 mg/lit respectively.
3. The results of stack attached to kiln of lime calcination plant- 2 (600 TPD) was exceeded for the parameter TPM- 119 mg/Nm<sup>3</sup> against consented standard 100 mg/Nm<sup>3</sup> and The results of stack attached to kiln of lime calcination plant- 2 (600 TPD) was exceeded for the parameter TPM- 119 mg/Nm<sup>3</sup> against consented standard 100 mg/Nm<sup>3</sup> and Stack attached to product discharge end & product sinter sizing house (sintering plant-1) was exceeded for the parameter TPM- 65 mg/Nm<sup>3</sup> against consented standard 50 mg/Nm<sup>3</sup>

AND WHEREAS, Sub-Regional Officer, Raigad-II has submitted the action proposal due to above non-compliances.

AND WHEREAS, after examining the records of your case, the reports the official of the Board & after necessary inquiry, I am satisfied that you have made grave & sudden injury to the Environment. It shows that your negative attitude towards compliance of provision of various environmental enactments.

NOW THEREFORE, you are hereby directed to show cause as to why the legal action shall not be initiated under the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 and Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2016 against your unit.

You are hereby directed to submit your reply/objection to the aforesaid show cause notice within a period of seven days from the receipt of this letter. Failure which, Board will have no option then to initiate appropriate legal action against your unit, as may be deem fit in your case, which may please be noted.

  
18/11/2020

(V. V. Killedar)

I/c. Regional Officer, Raigad

Copy to-

Sub-Regional Officer, Raigad-II - MPCB, - They are requested to submit the present status of industry within 3 day period & ensure that SCN to be served to the industry.

## MAHARASHTRA POLLUTION CONTROL BOARD

2

Phone : 022-67195031 Fax : 27780684 Email : soclab@mpcb.gov.in Website : http://mpcb.gov.in	 "Your Service is our Duty"	<b>Central Laboratory</b> Central Laboratory, Maharashtra Pollution Control Board, "Nirmal Bhavan", P-3, MIDC Industrial Area, Mahape, Navi Mumbai- 400 701
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Report Outward No.: MPCB/CLab/Ambient/22-23/05/24  
Date: 18/05/2022 04:21 PM

## Analysis Report-Air (Ambient)

Client/Industry/location Name & Address
On roof top of residence of Shri Dilip Kothekar(South-eastern side of M/s. JSW Ltd.) Vill. Gadab, Tal. Pen, Dist. Raigad.

Sample Details	
Field Sample ID :	BR-0022939
Laboratory Sample Code :	MPCB/CLab/AMB/22-23/45
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II(Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	
Sample Collected On :	May 4 2022 01:00:00:000PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	SO <sub>2</sub>	0	µg/m <sup>3</sup>	
2	SO <sub>2</sub>	0	µg/m <sup>3</sup>	
3	SO <sub>2</sub>	1	µg/m <sup>3</sup>	
4	SO <sub>2</sub>	1	µg/m <sup>3</sup>	
5	SO <sub>2</sub>	3	µg/m <sup>3</sup>	
6	SO <sub>2</sub>	2	µg/m <sup>3</sup>	
7	RSPM	452	µg/m <sup>3</sup>	
8	RSPM	367	µg/m <sup>3</sup>	
9	RSPM	392	µg/m <sup>3</sup>	
10	NO <sub>x</sub>	8	µg/m <sup>3</sup>	
11	NO <sub>x</sub>	10	µg/m <sup>3</sup>	
12	NO <sub>x</sub>	15	µg/m <sup>3</sup>	
13	NO <sub>x</sub>	4	µg/m <sup>3</sup>	
14	NO <sub>x</sub>	2	µg/m <sup>3</sup>	
15	NO <sub>x</sub>	10	µg/m <sup>3</sup>	

Report Type: final

Report generated on: 2022-05-18 16:21:25

Compiled & Approved by: Sharmila Bhirud

## MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 022-67195031  
 Fax : 27780684  
 Email : soclab@mpcb.gov.in  
 Website : http://mpcb.gov.in



Central Laboratory  
 Central Laboratory, Maharashtra Pollution  
 Control Board, "Nirmal Bhavan", P-3,  
 MIDC Industrial Area, Mahape, Navi  
 Mumbai- 400 701

Report Outward No.: MPCB/CLab/Ambient/22-23/05/23

Date: 18/05/2022 04:20 PM

## Analysis Report-Air (Ambient)

## Client/Industry/location Name &amp; Address

Near Labour Colony of M/s. JSW Steel Ltd. (Northside of M/s. JSW Steel Ltd.) Vill. Dolvi, Tal. Pen, Dist. Raigad.

## Sample Details

Field Sample ID :	BR-0022938
Laboratory Sample Code :	MPCB/CLab/AMB/22-23/44
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II(Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	
Sample Collected On :	May 4 2022 12:00:00:00PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	SO <sub>2</sub>	6	µg/m <sup>3</sup>	
2	SO <sub>2</sub>	1	µg/m <sup>3</sup>	
3	SO <sub>2</sub>	3	µg/m <sup>3</sup>	
4	SO <sub>2</sub>	3	µg/m <sup>3</sup>	
5	SO <sub>2</sub>	0	µg/m <sup>3</sup>	
6	SO <sub>2</sub>	1	µg/m <sup>3</sup>	
7	RSPM	306	µg/m <sup>3</sup>	
8	RSPM	110	µg/m <sup>3</sup>	
9	RSPM	91	µg/m <sup>3</sup>	
10	NO <sub>x</sub>	7	µg/m <sup>3</sup>	
11	NO <sub>x</sub>	4	µg/m <sup>3</sup>	
12	NO <sub>x</sub>	17	µg/m <sup>3</sup>	
13	NO <sub>x</sub>	3	µg/m <sup>3</sup>	
14	NO <sub>x</sub>	7	µg/m <sup>3</sup>	
15	NO <sub>x</sub>	3	µg/m <sup>3</sup>	

Report Type: final

Report generated on: 2022-05-18 16:20:08

Compiled & Approved by: Sharmila Bhirud

Client/Industry/location Name & Address
JSW Ispat Steel Limited (Lime Calcining Plant-600 TPD) R53 Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units

Sample Details	
Field Sample ID :	BR-0022941
Laboratory Sample Code :	MPCB/CLab/STK/22-23/11
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 5 2022 09:15:00:000PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	Total Particulate Matter	119	mg/Nm3	

Report Type: final

Report generated on: 2022-05-18 16:29:07

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:29 PM

Reviewed by: Mr Kishor Gawankar

Dr Vishwajeet R Thakur  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

Client/Industry/location Name & Address
JSW Steel Limited (Sinter Plant 2.5 MTPA) R53 Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units

Sample Details	
Field Sample ID :	BR-0022942
Laboratory Sample Code :	MPCB/CLab/STK/22-23/12
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 5 2022 09:30:00:00AM

Sr.No	Parameter	Result	Unit	Method of analysis
1	Total Particulate Matter	18	mg/Nm3	

Report Type: final

Report generated on: 2022-05-18 16:30:35

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:30 PM

Reviewed by: Mr Kishor Gawankar

**Dr Vishwajeet R Thakur**  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

2816

# 2817

B-3  
⑥

Client/Industry/location Name & Address
JSW Steel Limited (Sinter Plant 2.5 MTPA) R53 Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units

Sample Details	
Field Sample ID :	BR-0018621
Laboratory Sample Code :	MPCB/CLab/STK/22-23/10
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 4 2022 08:05:00:00PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	Total Particulate Matter	65	mg/Nm <sup>3</sup>	

30

Report Type: final

Report generated on: 2022-05-18 16:28:15

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:28 PM

Reviewed by: Mr Kishor Gawankar

**Dr Vishwajeet R Thakur**  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

# 2818

B-4  
⑦

Client/Industry/location Name & Address
Amba River Coke Ltd. (Pellet Plant-F of 4.0 MTPA)

Sample Details	
Field Sample ID :	BR-0022943
Laboratory Sample Code :	MPCB/CLab/STK/22-23/13
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	
Sample Collected On :	May 5 2022 10:15:00:000AM

Sr.No	Parameter	Result	Unit	Method of analysis
1	Total Particulate Matter	52	mg/Nm3	

Report Type: final

Report generated on: 2022-05-18 16:32:49

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:32 PM

Reviewed by: Mr Kishor Gawankar

**Dr Vishwajeet R Thakur**  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

Client/Industry/location Name & Address	
Amba River Coke Ltd. (Pellet Plant-I of 4.0 MTPA)	

Sample Details	
Field Sample ID :	BR-0022944
Laboratory Sample Code :	MPCB/CLab/STK/22-23/14
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	
Sample Collected On :	May 5 2022 11:00:00:000AM

Sr.No	Parameter	Result	Unit	Method of analysis
1	Total Particulate Matter	88	mg/Nm <sup>3</sup>	

Report Type: final

Report generated on: 2022-05-18 16:34:27

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:34 PM

Reviewed by: Mr Kishor Gawankar

Dr Vishwajeet R Thakur  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

Client/Industry/location Name & Address
Amba River Coke Limited R19 Coke making , liquefaction, coal tar distillation or fuel gas making

Sample Details	
Field Sample ID :	BR-0018620
Laboratory Sample Code :	MPCB/CLab/AMB/22-23/41
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 4 2022 03:45:00:00PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	RSPM	1923	µg/m <sup>3</sup>	

Report Type: final

Report generated on: 2022-05-18 16:13:27

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:13 PM

Reviewed by: Mr Kishor Gawankar

**Dr Vishwajeet R Thakur**  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

# 2821

C-2  
10

## MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 022-67195031 Fax : 27780684 Email : soclab@mpcb.gov.in Website : http://mpcb.gov.in	 "Your Service is our Duty"	<b>Central Laboratory</b> Central Laboratory, Maharashtra Pollution Control Board, "Nirmal Bhavan", P-3, MIDC Industrial Area, Mahape, Navi Mumbai- 400 701
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Repot Outward No.: MPCB/CLab/Source Emission/22-23/05/20  
Date: 18/05/2022 04:38 PM

### Analysis Report-Air (Source Emission)

<b>Client/Industry/location Name &amp; Address</b> JSW Steel Ltd. (Coke Oven Plant) R19 Coke making , liquefaction, coal tar distillation or fuel gas making
--

Sample Details	
Field Sample ID :	BR-0022909
Laboratory Sample Code :	MPCB/CLab/STK/22-23/15
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 4 2022 06:00:00:000PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	Total Particulate Matter	140	mg/Nm <sup>3</sup>	

Sr.No	Parameter	Reason	Reason Detail
1	Total Particulate Matter	Other	Final volume of flue gas is very low, however TPM results are calculated as per the data provided by FO.

Where, NA: Not Analysed ND: Not Detectable

Report Type: final

Report generated on: 2022-05-18 16:38:30

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:38 PM

Reviewed by: Mr Kishor Gawankar

Client/Industry/location Name & Address
Amba River Coke Limited R19 Coke making , liquefaction, coal tar distillation or fuel gas making

Sample Details	
Field Sample ID :	BR-0018622
Laboratory Sample Code :	MPCB/CLab/AMB/22-23/42
Sample Details (Water/Air/HW) :	Air
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 4 2022 04:00:00:000PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	RSPM	693	µg/m3	

Report Type: final

6 d

Report generated on: 2022-05-18 16:15:01

Compiled & Approved by: Sharmila Bhirud

Reviewed on Date: 18/05/2022 04:15 PM

Reviewed by: Mr Kishor Gawankar

**Dr Vishwajeet R Thakur**  
Senior Scientific Officer  
I/C, Central Laboratory  
Navi Mumbai

\* Electronic report does not require signature

Client/Industry/location Name & Address
Amba River Coke Limited R.19 Coke making , liquefaction, coal tar distillation or fuel gas making

Sample Details	
Field Sample ID :	BR-0022929
Laboratory Sample Code :	MPCB/CLab/JVS/22-23/362
Sample Details (Water/Air/HW) :	Water
Sample Volume Received :	
Sample Collected By :	FO-Raigad II (Shri. Jayant Doke) (SRO-Raigad II)
Seal No. :	251
Type of Industry / Location details :	Red
Sample Collected On :	May 5 2022 12:30:00:000PM

Sr.No	Parameter	Result	Unit	Method of analysis
1	pH	5.6		
2	Total Dissolved Solids(TDS)	2384.0	mg/l	
3	Suspended Solids ( SS )	36.0	mg/l	
4	Biochemical Oxygen Demand (BOD)	38.0	mg/l	

Report Type: final

Report generated on: 2022-05-17 10:49:17

Compiled & Approved by: Heena khalokar

Reviewed on Date: 17/05/2022 10:49 AM

Reviewed by: Ashok Mandavkar

Dr Vishwajeet R Thakur (Lab. I/c.)  
Approving Authority  
Reviewing Authority

Central Laboratory, MPCB

\* Electronic report does not require signature

23<sup>rd</sup> November 2022

ARCL/COP 1/ENV/MPCB/2022

To

The Regional Officer, Raigad,  
Maharashtra Pollution Control Board,  
Raigad Bhavan, 6th Floor,  
Sector 11, CBD, Belapur, Navi Mumbai - 400 614.

Sub: Reply for Show cause notice for non-compliance of consent conditions.

Ref: 1) Your letter No. BO/RO-Raigad/SCN/TB-2211180031 dated 18/11/2022.  
2) Visit of Board Officials in the plant on 4<sup>th</sup> and 5<sup>th</sup> May 2022  
3) Boards Consent No Format No 1BO/CAC-Cell/UASN No 0000024004-17/CAC-1803000008  
dated 01/03/2018 which was valid up to 31/05/2022.

Respected Sir,

We acknowledge the receipt of your letter dated 18/11/2022 which was received through your email dated 19/11/2022. Our point wise reply to the letter referred above is submitted as under:

We state that, we have been granted Consent to Operate for Coke Oven plant (1.0 MTPA) at Amba River Coke Ltd and we are complying with the Consent to Operate conditions under section 26 of The Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Hazardous Wastes (Management & Transboundary Movement) Rules, 2016 on regular basis.

And that, we have taken adequate control measures and installed pollution control devices and treatment plants with one of the best available technologies at all units in our plant to control and prevent pollution from all sources. Amba River Coke Ltd., Dolvi is the associate company of M/s. JSW Steel Ltd and complying with the stipulated Consent conditions from time to time.

It is stated that the PM10 values were exceeding during the Joint visit carried out for Ambient Air Quality Monitoring carried out by Board Officials on 4<sup>th</sup> and 5<sup>th</sup> May 2022. It is to be noted that the said visit was outside the plant at following locations and PM<sub>10</sub> values mentioned as per the JVS report and our clarifications are as below.

1. Near KES Madhyamik Vidyamandir at Sahabaj Village – PM<sub>10</sub> was 145.66 µg/m<sup>3</sup>

The air quality monitoring results of PM<sub>10</sub> of Sahabaj Village as per your JVS Report is on the higher side our submission with reference to the result is as follows.

Regd. Office: JSW Centre,  
Bandra Kurla Complex,  
Bandra(E), Mumbai - 400 051.

Phone : +91 22 4286 1000  
Fax : +91 22 4286 3000



The Sahabaj Village which is located on the South west Direction of JSW Ltd and the predominant wind direction on 4<sup>th</sup> and 5<sup>th</sup> of May was predominantly from East to West on 4<sup>th</sup> of May and from South-East to North-west on 5<sup>th</sup> of May, so on both days the predominant direction of the wind was not in the direction of the village from the plant. The Wind Rose Diagram super imposed with Google Map on 4<sup>th</sup> and 5<sup>th</sup> May 2022 are attached herewith in Annexure 1 and 2.

The reason of high PM value may be due to the local activity of the village. The monitoring equipment was kept in the playground which is unpaved and also it is devoid of any grass or vegetation. In summer season, there are chances of dust emission while playing the sports activity by Children's.

Apart from this, there is considerable vehicle movement within the village articulate roads which also contributed to the high dust emission.

In view of the above observation we submit that the high readings during the monitored period were due to the surrounding and within activity of the village and also since our plant is at a much farther distance from the village so the higher emission reading is not due to our activity and so cannot be attributed to us.

**2. On roof of the residence of Mr. Dilip Kothekar at Gadab Village was 403.66 $\mu\text{g}/\text{m}^3$**

During air quality monitoring at Gadab Village, the PM<sub>10</sub> was higher side as per the JVS Report. We would like to submit that the Gadab village is located on the South Eastern side of M/s JSW Ltd plant and the predominant wind direction on 4<sup>th</sup> and 5<sup>th</sup> of May was predominant from East to West on 4<sup>th</sup> of May and from South East to North west on 5<sup>th</sup> of May so on both days the predominant direction of the wind was not in the direction of the village from the plant on the contrary the wind was moving in from the village to the plant on 5<sup>th</sup> of May.

The aerial distance from the Plant boundary to the village is about 730 meter approx. but the Mumbai Goa highway is adjacent to the village and moves along with the village boundary at one end. Further, on the date of sampling there was a marriage function near the sampling location so lot of vehicle movement was observed for the whole day.

In view of the above observation we submit that the high readings during the monitored period were due to the surrounding and within activity of the village. So the higher PM<sub>10</sub> value were influenced by the above activity inside and surrounding the village and thus it cannot be attributed to us.

**3. Near Labour Colony of JSW Steel Ltd, Dolvi Village was 169  $\mu\text{g}/\text{m}^3$**

The monitoring location near the Labour colony near the Dolvi village is located on the Northern side of M/s JSW Steel Ltd plant and the predominant wind direction on 4<sup>th</sup> and 5<sup>th</sup> of May was predominant from East to West on 4<sup>th</sup> of May and from South East to North west on 5<sup>th</sup> of May so on both days the predominant direction was not in the direction of the village from the plant.

The village is located in very close proximity to the National Highway from Mumbai to Goa. During the monitoring in Dolvi Village area, the National Highway work was in progress and the aerial distance of the location from the National Highway is < 500 meters. Due to the above, there may be high PM<sub>10</sub>.





We humbly submit that as per the monitoring locations, very heavy traffic movement is happening on a continuous basis due to the constructing of the national highway.

However, In the plant, we have installed adequate air pollution Control systems like Dedusting System (Raw material Handling Area), Dust collection systems with bag filters, Electrostatic precipitator, wet scrubbers provided to control the fugitive dust emissions at raw material handling area including all transfer points, Furnaces and Products handling area. The pollution control systems installed at the plant are operating efficiently and effectively and meets the prescribed norms of pollution control and we are also adhering to the standards set by MPCB/ CPCB.

Looking to the above geographical conditions and the values recorded as per your notice it will be in the interest of justice that the monitored location needs to be re-monitored for the ambient air quality and requested your good self to again schedule an ambient air quality monitoring of all the above locations and also share the reports with us.

JVS results of water samples collected from the ETP outlet of Coke Oven plant 1 was exceeded for the parameter BOD 38 mg/Ltr and TDS 2384 mg/Ltr against the consent limit of 30 mg/Ltr and 1500 mg/Ltr respectively.

It is mentioned in your notice under reply that the water samples collected shows exceeding results with respect to BOD and TDS parameters. With reference to high BOD and TDS parameters of BOD outlet, the marginal high BOD is a temporary phenomenon due to changes associate with the temperature due to climatic condition. However, subsequently it becomes normal. There is no standard for TDS in Coke Oven as per prescribed by Ministry of Environment & Forest Climate Change in it's notification dated 31.3. 2012.

However, the treated water of Effluent Treatment Plant of Coke Oven is being reused for wet quenching of hot coke for cooling purpose. The water gets evaporated and residue of Coke breeze is used back in process. Hence, no environment damage is caused from this process.

Stack Results of Kiln of Lime Calcination Plant (LCP)- 2 (300 TPD) was exceeded for the parameter TPM 119 mg/Nm<sup>3</sup> against the consent standard 100 mg/Nm<sup>3</sup>.

In Lime Calcination Plant- 2, we have installed Bag filter of capacity 64500 Nm<sup>3</sup>/Hr in Kiln 2 de-dusting system. The entire filter bags were replaced in the month of January 2022 and there is no possibility of any emissions from the chimney. Furthermore, during the monitoring period, there is no visible emissions observed from the stack. Through the JVS report, we came to know that the sampled value was 119 mg/Nm<sup>3</sup>, which is above the designed value. We had carried out thorough inspection of the internals of the bag filters like Bags, Cages, Solenoid valves and timer panels and hopper during the shutdown and we found all the above are in good condition. We have carried out the Isokinetic stack monitoring and the values are within the norms with respect to the design values (< 50 mg/Nm<sup>3</sup>). The monitoring values for the month of May 2022 (dated 3<sup>rd</sup> May 2022) the Particulate Matter was 45 Mg/Nm<sup>3</sup>.





Stack attached to Product Discharge End and Product Sinter sizing ESP at Sinter Plant 1 was exceeded for parameter TPM 65 mg/Nm<sup>3</sup> against the consented standard of 50 mg/Nm<sup>3</sup>

During monitoring of stack emissions at Sinter Plant 1 - Discharge End and Sinter Sizing ESP, there was no visible emissions observed from the chimney. Also the ESP is designed for the parameter < 50 Mg/Nm<sup>3</sup>. During the monitoring all the fields were in operation and operating at the maximum mA. Through the JVS report, we came to know that the sampled value was 65 Mg/Nm<sup>3</sup>, which is just above the designed value of ESP. Therefore, we have carried out through inspection of the ESP Fields, TR Sets and rapper panel, no abnormalities were found. We have adjusted the last filed rapping of the ESP to further improve the efficiency. Thereafter we have carried out isokinetic sampling by our team and found that the results are within the norms. The monitoring values for the month of May 2022 (dated 10<sup>th</sup> May 2022) for the Particulate Matter was 42.31 Mg/Nm<sup>3</sup>

We would like to reiterate the fact that we have not knowingly or wilfully violated any provisions or the consent conditions of the Water Act 1974, the Air Act 1981 or the Hazardous Waste Rules, 2016.

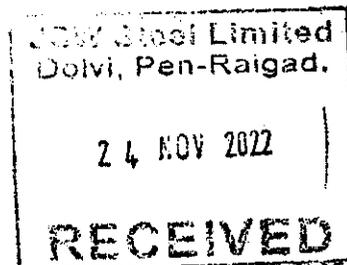
With reference to our above point wise clarifications and commitment towards environment protection, it may please may be reaffirmed that Amba River Coke Ltd., Dolvi is complying with all the provisions under section 26 of The Water (prevention and control of pollution) Act, 1974 and under section 21 of the Air (Prevention and control of pollution) Act 1981 and Authorization under Rule 6 of Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

We hereby humbly request you to please accept the above submissions and do not initiate any legal action against our industry and kindly withdraw the show cause notice.

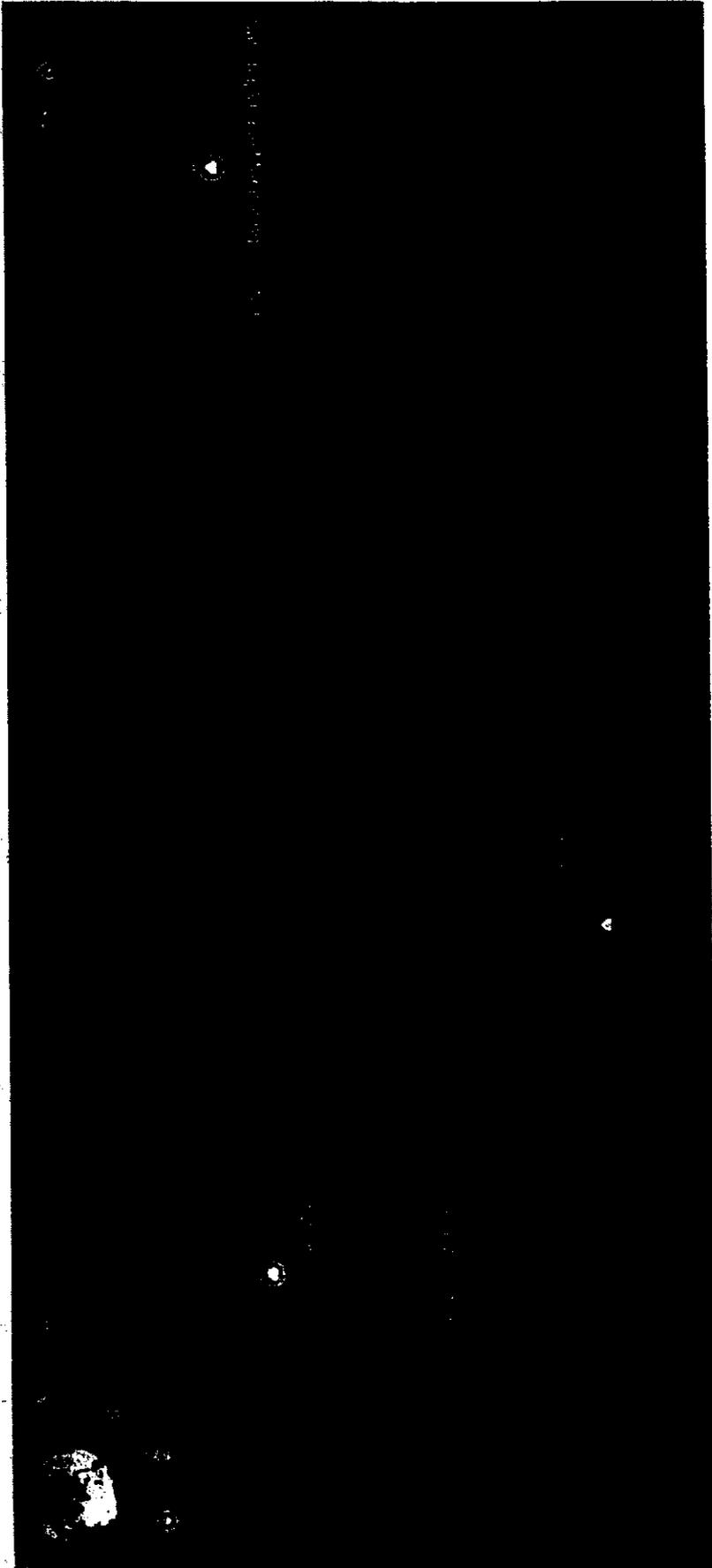
Thanking you,  
For Amba River Coke Ltd., Dolvi

Dr. Anand Rai  
Vice President (Head - Environment)

CC: Sub-Regional Officer, Raigad II, MPCB, CBD, Belapur, Navi Mumbai.

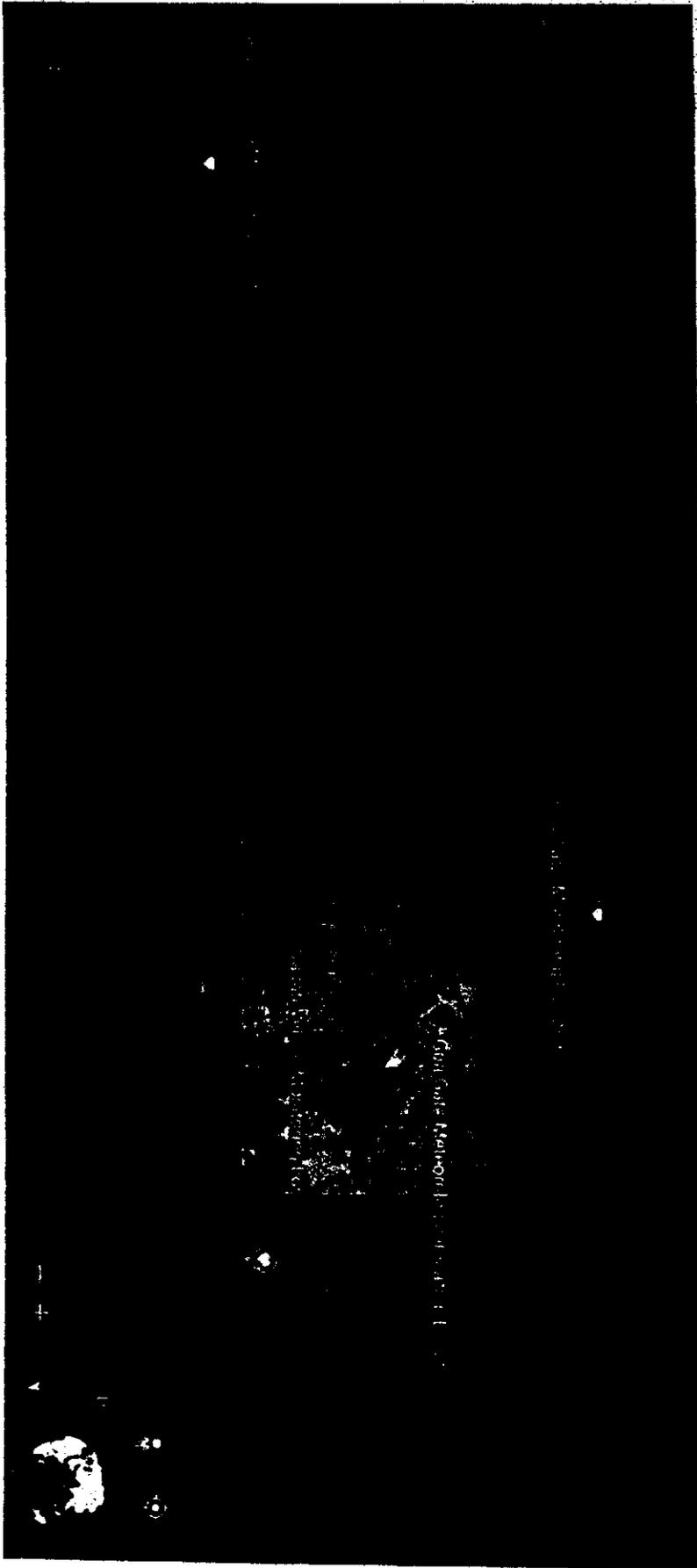


04.05.2022



ANNEXURE -

05.05.2022



ANNEXURE - 2

<b>MAHARASHTRA POLLUTION CONTROL BOARD</b>		
<b>Regional Office, Raigad</b>		
Phone: - (022) - 2757 6034 Fax: - (022) - 2756 2132 E-mail: - roraigad@mpcb.gov.in Website: - http://mpcb.gov.in		Raigad Bhavan, 6th Floor, Sec-11, C.B.D. Belapur, Navi Mumbai 400 614.

No.BO/RO-Raigad/SCN/TB-22/12/1001

Date: 21.11.2022

To,  
**M/s. JSW Steel Ltd. (Integrated Steel Plant)**  
**(Hot Strip Mill Plant-3.5 MTPA)**  
**Village Dolvi, Tal. Pen, Dist. Raigad;**

Sub: Show Cause Notice for non-compliance of consent conditions.

- Ref: - 1. Board's consent no Format no.1BO/CAC-Cell/UAN No. 0000045821-18/CAC-1811000099 dated 02.11.2022 which is valid upto 30.04.2023.  
 2. Visit of Board Officials to your unit on 03.11.2022.  
 3. Action proposal received from SRO, Raigad-II dated 18.11.2022.

WHEREAS, the Board has granted Consent to Operate to your **Hot Strip Mill Plant-3.5 MTPA** with certain term and conditions under section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016.

AND WHEREAS, you were under an obligation to provide adequate pollution control system for air and water & disposal arrangement for trade effluent to meet the standards prescribed by the Board in the consent order. You were under an obligation to operate and maintain the ETP and the pollution control devices effectively, so as to achieve standards prescribed in the consent granted to you.

AND WHEREAS, Board Officials visited your industry on 03.11.2022 and observed following non-compliances;

1. The water used for slag cooling was discharged into storm water drain which further flows through natural nalla which ultimately leads to Dharamtar Creek. The temperature of the water is about 60<sup>o</sup> C. whereas, as per the consent condition, you shall 100% recycled treated trade effluent in the process to achieve ZLD.
2. Leakages and seepages of water was observed in various plant viz. HSM plant, BF plant, Sinter plant etc. which goes into natural nalla through storm water drain which further leads to Dharamtar creek. The colour of the storm water is reddish-brown which confirm the contamination of raw material such as iron in the storm water drain.
3. Spillages of Raw material was observed at transfer points near LCP plant 3, Raw Material Handling Area. Dust accumulation was also observed in LCP plant-3, 4 and Sinter plant.

AND WHEREAS, Sub-Regional Officer, Raigad-II has submitted the action proposal due to above non-compliances.

**AND WHEREAS**, after examining the records of your case, the reports the official of the Board & after necessary inquiry, I am satisfied that you have made grave & sudden injury to the Environment. It shows that your negative attitude towards compliance of provision of various environmental enactments.

**NOW THEREFORE**, you are hereby directed to show cause as to why the legal action shall not be initiated under the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 and Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2016 against your unit.

You are hereby directed to submit your reply/objection to the aforesaid show cause notice within a period of seven days from the receipt of this letter. Failure which, Board will have no option then to initiate appropriate legal action against your unit, as may be deem fit in your case, which may please be noted.



(V. V. Killedar)  
I/c. Regional Officer, Raigad

Copy to-

Sub-Regional Officer, Raigad-II - MPCB, - They are requested to submit the present status of industry within 3 day period & ensure that SCN to be served to the industry.

Exhibit 2832

JSW

JSW STEEL LIMITED

Dolvi Works:  
Geetapuram,  
Dolvi, Taluka - Pen,  
Dist. Raigad - 402 107, Maharashtra, India.  
CIN : L27102MH1994PLC152925  
Phone : +91 2143 663000/3100/3200  
Fax : +91 2143 277533/42  
Website : www.jsw.in

Ref. No. JSWSL/HSM/MPCB/ENV/2022  
Date: 25<sup>th</sup> November 2022

To,  
The Regional Officer,  
Maharashtra Pollution Control Board, Raigad  
Raigad Bhavan, 5<sup>th</sup> Floor  
CBD Belapur,  
Navi Mumbai-400614

Sub: Reply to Show cause notice for non-compliance of Consent Conditions.

Ref: 1. Your letter BO/RO-Raigad/SCN/TB-2211210011 dated 21/11/2022

Respected Sir,

With reference to the above, we have received Show Cause notice through mail dated 21/11/2022 and our point wise reply to the same is as under:

We would like to humbly submit that JSW Steel Ltd., Dolvi is regularly complying with all the provisions of the Consent to Operate conditions under section 26 of The Water (prevention and control of pollution) Act, 1974 and the Air (Prevention and control of pollution) Act 1981 and Authorization under Hazardous Wastes (Management & Transboundary Movement) Rules 2016 on regular basis.

During the visit of Board Officials on 03/11/2021 the point wise observations and our clarifications are as below.

1. *The water used for slag cooling was discharged into storm water drain which further flows through natural nalla which ultimately leads to Dharamter Creek. The temperature of the water is about 60° C. whereas, as per the consent condition, you shall 100% recycled treated trade effluent in the process to achieve ZLD.*

We hereby state that during regular operation of the SMS if any leakage happens in the GCP cooling elbow the water gets collected in the pit of Slag cooling water tank but during the visit of MPCB Officials on 03/11/2022 the water jacket elbow got punctured in Shell - 4 this resulted

Page 1 of 3



JINDAL Part of O. P. Jindal Group

Regd. Office: JSW Centre,  
Bandra Kurla Complex,  
Bandra (East), Mumbai - 400 051.  
Phone : +91 22 4286 1000  
Fax : +91 22 4286 3000



in momentary overflow of water from the tank but swift action was taken and the system was stopped and brought back to its normal condition immediately. This water did not flow to the creek side.

To avoid reoccurrence, we have constructed additional tank with pumps in the said area which will immediately pump any such leakage water back in to the Slag pit thus avoiding any reoccurrence of such incident.

Further to it we already had arrangement in the drain which blocked the water at either end and this water was then pumped back into the slag cooling for reuse. In our plant piling activity for civil work is going on and hence some of the ground water finds it way in the storm water drain. This is a short time activity and after completion of piling the generation of such underground water will not happen.

However, further we are working on improving the life of the elbow by providing wear resistant coating

**2. Leakages and seepages of water was observed in various plant viz. HSM plant, BF plant, Sinter plant etc. which goes into natural nalla through storm water drain which further leads to Dharamtar creek. The colour of the storm water is reddish - brown which confirm the contamination of raw material such as iron in the storm water drain.**

From Hot Strip Mill - on 03/11/2022, SMS Shell - 4, the elbow of the cooling water recirculation system, the pipeline got puncture and due to which certain amount of water was flowing towards the slag cooling collection pit. Thereafter, corrective action had been taken by and the overflow was stopped immediately.

**Blast Furnace Plant** - Already Waste Water Treatment plant is in place and no waste water is discharged from the plant.

Sinter plant there is no waste water generation and no discharge has taken place.

However, in the plant area ongoing project activities like Civil piling work and excavation work is in progress. Due to which the ground water is flowing through storm water drain. There are no other leakages or seepages except for underground water generated during piling work. The dust spread along the path got mixed with the underground water and so it might have been reddish in colour. But the same is not done intentionally at all.

**3. Spillages of Raw material was observed at transfer points near LCP plant 3, Raw Material Handling Area. Dust accumulation was also observed in LCP plant-3, 4 and Sinter plant.**

The material that was observed was at the *take up pulley area* of the belt conveyor and has been caused due to the wet material in rainy season which gets sticks to the belt and at the take up pulley area due to lopsided movement of the belt it is deposited there.



This wet material does not contribute to the fugitive emission due to inherent moisture in the material though we are periodically cleaning the same on a daily basis.

We have already installed Primary and Secondary belt cleaner in the Head end of the belt conveyor to avoid such deposition. This dust accumulation only happens during monsoon season due to wetness of the raw material being transferred and in dry season the area is totally free of any material.

In addition to the above we have also installed a tertiary belt cleaner to minimize such occurrence further. Hence, it is submitted that accumulated dust in LCP 3, 4 and Sinter plant is not due to spillage but is collected during cleaning process of Conveyor belt

In view of the above, it is submitted that JSW Steel Ltd., Dolvi is complying all the provisions of The Water (prevention and control of pollution) Act, 1974 and Air (Prevention and control of pollution) Act 1981.

We hope you will find the measures proposed to be undertaken by us as effective. We reiterate our commitment to keep the environment pollution free and will try our best to achieve that goal.

From the above, stand point, we humbly submit and request to kindly withdraw the show cause notice and oblige.

Your kind consideration is requested.

Thanking You

Yours Faithfully  
For JSW Steel Ltd



Dr Anand Rai  
Vice President (Head - Environment)

CC: The Sub Regional Officer, Raigad II, MPCB, Raigad, Navi Mumbai.

Exhibit (P)  
2835

**MAHARASHTRA POLLUTION CONTROL BOARD**

Tel: 24010437/24020781/24014701		Kalpataru Point, 2 <sup>nd</sup> - 4 <sup>th</sup> Floor
Fax: 24024068 / 24023515		Opp. Cine Planet Cinema,
Website: <a href="http://mpcb.mah.nic.in">http://mpcb.mah.nic.in</a>		Near Sion Circle, Sion (E)
E-mail: <a href="mailto:cac-cell@mpcb.gov.in">cac-cell@mpcb.gov.in</a>		Mumbai-400 022.

No. BO/CAC-CELL/SCN/TB- 2212160002

Date: - 16/12/2022

To,  
M/s JSW Steel Ltd., (55 MW Captive Power Plant),  
Survey No.129,130 A,130B,131,132  
Village- Khar Kharav, Village-Dolvi,  
Tal-Pen, Dist-Raigad.

**Sub: Show Cause Notice under the provisions of Water (P & CP) Act, 1974 and Air (P & CP), 1981 for refusal of renewal of consent to operate.**

**Ref: (1) Your application for renewal of consent vide UAN No. 0000144072.**  
**(2) Minutes of Consent Appraisal Committee meeting held on 02.12.2022.**

WHEREAS, you have applied for renewal of consent for Captive Power Plant, as per the provisions of Section 26 of the Water (Prevention and Control of Pollution) Act, 1974; under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

AND WHEREAS, your consent application was placed before Consent Appraisal Committee meeting held on 02.12.2022 and it was decided to defer the case and issue show cause notice for refusal of consent for following non compliances of consent conditions.

1. You have not submitted the Audited balance sheet for the year 2021-2022.
2. There is a discrepancy in the survey numbers.
3. You have not submitted the Compliance of Environment clearance and consent conditions.
4. You have not furnished the details of ETP and its unit with capacity are not furnished for treatment of effluent generated from boiler blow down, cooling tower blow down, DM plant, Washing effluent etc.
5. As per the application and Water budget submitted by industry the trade effluent generation is 1603 CMD which is more than the consented quantity of 991.20 CMD.
6. STP is not provided for treatment of domestic effluent of 40 CMD. Only septic tank provided.
7. You have not furnished the details of generation, treatment and disposal of chemical sludge arises from wastewater treatment. You have disposed Glass Wool Scrap- 2.320 MT to CHWTSDF on 23.06.2022. However, Glass Wool Scrap is not reflected in the consent.
8. From the average online stack report, it reveals that 49% the online stack emission monitoring system (OCEMS) is not in operation.
9. Analysis result of stack monitoring carried out on 06.05.2022 is exceeding the standards for TPM parameter.

Contd...2..

..2..

AND THEREFORE, you are now directed to Show Cause as to why, your application for renewal of Consent shall not be refused under the provisions of Water (P & CP) Act, 1974 and Air (P & CP) Act, 1981, and why further necessary legal action shall not be initiated under the provision of above said Act against you.

You are instructed to submit your reply within 07 days after receipt of this letter, failure to this, it will be presumed that you have nothing to say and final refusal of Consent will be issued, which may please be noted.



(Dr. Y.B. Sontakke)  
Joint Director (WPC)

Copy for necessary action to:-  
Regional Officer, Raigad / Sub-Regional Officer, M.P.C Board, Raigad-II - To ensure that SCN to be served to the unit & report the compliance accordingly within 7 days.



EX-28379

Dolvi Works:  
Geelapuram,  
Dolvi, Taluka - Pen,  
Dist. Raigad - 402 107, Maharashtra, India.  
CIN : L27102MH1994PLC152825  
Phone : +91 2143 863000/31003200  
Fax : +91 2143 277533/42  
Website : www.jsw.in

JSWSL/55 MW CPP/ENV/MPCB/2022

December 20, 2022

To

The Joint Director, (WPC)  
Maharashtra Pollution Control Board,  
Kalpataru Point, Near Sion Circle,  
Sion (East), Mumbai - 400 022

Kind Attention: Dr. Y B Sontakke, Joint Director, (WPC), MPCB

Sub: Reply to Show Cause notice for JSW Steel Ltd., Dolvi, under the provisions of Water (P & CP) Act, 1974 and the Air (P & CP) Act 1981 for refusal of renewal of consent to operate for 55 MW Captive Power plant.

Ref: i) Our Application dated 19/07/2022 vide UAN No. 0000144072, MPCB CONSENT 0000144072 for renewal of Consent to operate for 55 MW Captive Power plant  
ii) Our reply dated 18<sup>th</sup> August 2022 against MPCB scrutiny letter dated 01/08/2022 and 17/08/2022  
iii) MPCB Letter No BO/CAC-CELL/SCN/TB-2212160002 dated 16/12/2022

Dear Sir,

With reference to above, we have received your above letter on 16<sup>th</sup> December 2022 through e-mail and we humbly submit that M/s. JSW Steel Ltd., Dolvi is complying with the Consent to Operate conditions under section 26 of The Water (prevention and control of pollution) Act, 1974 and under section 21 of the Air (Prevention and control of pollution) Act 1981 and Authorization under Rule 6 of Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

We would like to inform you that the 55 MW Captive power plant is 100 % gas based power plant it is one of the best available technology for reusing the waste gases generated from the Blast Furnace and Coke oven plant.

As per the scrutiny letter received from MPCB Consent Portal, we have already submitted the reply / clarification against the MPCB scrutiny letter dated 01/08/2022 and 17/08/2022 on the MPCB Portal against our reply dated 18/08/2022.

However, we are submitting the point wise details for 55 MW Captive Power plant (55 MW) Gas Based as below.



JINDAL Part of O. P. Jindal Group

Regd. Office: JSW Centre,  
Bandra Kurla Complex,  
Bandra (East), Mumbai - 400 051.  
Phone : +91 22 4288 1000  
Fax : +91 22 4288 3000



1. Audited balance sheet for the year 2021-2022 is not submitted.

The Balance sheet for JSW Steel Ltd for the year 2021-22 is attached herewith for kind reference in Annexure 1

2. There is a discrepancy in the survey numbers.

The 55 MW CPP are located within the existing JSW Integrated Steel Plant. The Survey No of the 55 MW Captive Power plants are Survey Nos. 129, 130 A, 130 B, 131, 132 KHAR KARAV VILLAGE and the copies of the documents are attached herewith in Annexure 2A, 2B, 2C, 2D and 2 E.

3. Compliance of Environment clearance and consent conditions is not submitted.

Copies of Compliance reports of Environment Clearance for expansion of integrated steel plant capacity from 3 to 5 MTPA and CTO Compliance conditions for 55 MW CPP are attached in Annexure 3 A & 3 B

4. The details of ETP and its unit with capacity are not furnished for treatment of effluent generated from boiler blow down, cooling tower blow down, DM plant, Washing effluent etc.

In 55 MW Captive power plant we have installed the Effluent Treatment Plant with RO facility to treat the Waste water. The waste water will be treated in the RO plant and the treated water shall be reused in the process i.e. 996 M<sup>3</sup>/Day (41.5 M<sup>3</sup>/hr) in 55 MW CPP.

RO Reject: 156 m<sup>3</sup>/Day (Ro reject is being collected in the tank and used for Slag cooling purpose.)

Effluent Generation 3 M<sup>3</sup>/Day is being treated in Septic tank with soak pits.

The water budget with ETP details are attached in Annexure 4

5. As per the application and Water budget submitted by industry the trade effluent generation is 1603 CMD which is more than the consented quantity of 991.20 CMD.

55 MW CPP, the Water Balance including the quantity of water consumption, effluent generation and disposal are as below.

As per the earlier consent the trade effluent generation is 991.2 M<sup>3</sup>/Day. However the capacity of ETP is 996 M<sup>3</sup>/Day to treat the waste water.

- Process Water Consumption 4724 M<sup>3</sup>/Day (196.8 M<sup>3</sup>/Hr)
- Waste water will be treated in the RO plant and the water will be reused in the process i.e. 996 M<sup>3</sup>/Day (41.5 M<sup>3</sup>/hr)
- RO Reject: 156 m<sup>3</sup>/Day (Ro reject is being collected in the tank and used for Slag cooling purpose.)

There is no waste water discharge to outside from the plant.



6. STP is not provided for treatment of domestic effluent of 40 CMD. Only septic tank provided.

As per the details submitted in the scrutiny letter dated 18<sup>th</sup> August 2022, the Actual Domestic Water Consumption is 5 M3/Day as per the manpower for the power plant is 30 persons.

As per the consumption of domestic water, the Domestic Effluent Generation will be 3 M3/Day. The same is being treated in Septic tank with soak pits. From septic tank the water is sucked and transported through vehicle and treated in the existing sewage treatment plant. Hence as per the domestic water Consumption, provision of separate Sewage Treatment plant for 55 MW Captive Power plant is not required / applicable.

7. Industry has not furnished the details of generation, treatment and disposal of chemical sludge arises from wastewater treatment. Industry has disposed Glass Wool Scrap-2.320 MT to CHWTSDF on 23.06.2022. However, Glass Wool Scrap is not reflected in the consent.

There is no generation of the Chemical sludge generated from the waste water treatment plant. Hence, disposal of Chemical sludge is not applicable. The RO rejected is send to Blast Furnace Slag-cooling purpose.

Industry has generated 2.32 MT of excess fresh glass wool from the project work of the new power plant during installation and commissioning stage. Which was scientifically disposed to the MPCB authorized CHWTSDF i.e. Mumbai Waste Management Ltd., Taloja. This is a first time generation and not a regular generation from the power plant. Hence it was not reflected in the earlier Consent to operate for 55 MW Captive power plant.

8. From the average online stack report, it reveals that 49% the online stack emission monitoring system (OCEMS) is not in operation.

Industry has installed the on line Continuous Emission Monitoring System for 55 MW Captive Power plant stack. The data for Continuous emission monitoring system for 55 MW Captive Power plant, following problem were occurred from September 2021 to February 2022

- a) Software migration from Elips Scada to G Lens (15 Days) due to Scada software was outdated.
- b) PC Hard disk issue – Replaced with new Hard Disk
- c) CEMS system was stopped due to commissioning of Remote calibration for 3 to 4 months by M/s. Adage Automation and M/s. Knowledge Lens Pvt Ltd for data communication as per the CPCB and MoEFCC guidelines.
- d) Replacement of new PC with higher configuration

The above problems were from September 2021 to 9<sup>th</sup> February 2022. After resolve the above issues, from 10<sup>th</sup> February 2022 onwards the CEMS is working properly and the data is uploaded on regular basis with MPCB and CPCB servers. Industry is having a regular maintenance schedule for CEMS.



From March 2022 to September 2022, the data availability is > 97 % and the details are attached in Annexure 5

9. Analysis result of stack monitoring carried out on 06.05.2022 is exceeding the standards for TPM parameter.

The 55 MW Captive power plant is 100 % gas based (Blast Furnace Gas and Coke Oven gas) and there are no other fuels used in the plant. As per the monitoring reports of CEMS and our monitoring, the results are being well within the norms for the Particulate Matter against the MPCB Norms (i.e. < 50 mg/Nm<sup>3</sup>).

Also we would like to inform you that the Joint Vigilance Monitoring carried out on 6<sup>th</sup> May 2022 was not for 55 MW Captive power plant.

Sir, with reference to above justification, we are committed to environment protection and ensure you that we are in compliance to the consent conditions as stipulated by MPCB for 55 MW Captive power plant.

The above clarifications stated herein above, we request you to kindly accept our reply and we would also like to assure you that we have not contravened any of the provisions of The Water (prevention and control of pollution) Act, 1974 and the Air (Prevention and control of pollution) Act 1981 and Authorization under Hazardous Wastes (Management & Transboundary Movement) Rules 2016.

Also it is our humble request you to please withdraw the show cause notice issued against our industry and requested to kindly grant renewal of Consent to Operate for 55 MW Captive Power Plant.

Thanking you,

For JSW Steel Ltd., Dolvi

Dr. Anand Rai

Vice President (Head - Environment)

- CC:
1. Regional Officer, Raigad, MPCB, CBD Belapur, Navi Mumbai.
  2. Sub-Regional Officer, Raigad II, MPCB, CBD, Belapur, Navi Mumbai.



