

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,

Principal Bench, New Delhi

Original Application No. 67/2020

In the matter of: -

Nathan Chaudhary

Applicant(s)

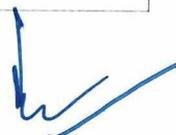
Vs.

State of GNCTD & Ors.

Respondent(s)

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(Abhey Singh Soni)

Scientist-E

Central Pollution Control Board,  
Parivesh Bhawan, East Arjun Nagar,  
Delhi- 110032.

Date: 04.03.2021

Place: Delhi

**Action Taken Report  
in the matter of  
Original Application No. 67/2020  
"Nathan Chaudhary vs State of  
GNCTD & Ors."**



**March, 2021**

**CENTRAL POLLUTION CONTROL BOARD**

**(Ministry of Environment, Forest & Climate Change, Government of India)**

**Parivesh Bhawan, East Arjun Nagar,**

**Shahdara, Delhi – 110032**

## **Background:**

In regards to unscientific handling, management and disposal of spent catalyst generated from various processes of the oil refineries, which comes under hazardous waste category of Schedule I (as listed at serial No. 1.1 to 4.5) of HOWM, Rules, 2016, the applicant in the matter of O.A. No. 67/2020, is claiming that spent catalyst generating from oil refineries are violating HOWM Rules, 2016 w.r.t. handling, management and disposal of spent catalyst. They are illegally selling their hazardous waste to the hazardous waste re-processors without valid authorisation from SPCB under Rule 9 of HOWM Rules, 2016.

In the matter of O.A. No. 67/2020; Nathan Chaudhary vs State of GNCTD & Ors., Hon'ble National Green Tribunal (NGT) vide its order dated 20.03.2020, directed a factual and action taken report from the Central Pollution Control Board (CPCB), Punjab PCB (PPCB), Haryana State PCB, West Bengal PCB (WBPCB), Assam PCB (APCB) and Delhi Pollution Control Committee (DPCC). CPCB is the nodal agency for coordination and compliance.

To ensure the compliance of Hon'ble NGT directions, CPCB requested all concerned SPCBs/PCCs where oil refineries are operational and generating spent catalyst, to provide information w.r.t. handling, management & disposal of spent catalyst in accordance of HOWM Rules, 2016. In this connection CPCB and concerned SPCBs/PCC with nominated officials from their Board constituted a committee for co-ordination, carrying out inspections and preparation of factual and action taken report. Upon receipt of information from the SPCBs/PCCs and Oil Refineries and after conducting joint inspection of some oil refineries & spent catalyst recyclers/utilizers, CPCB furnished an Action Taken Report to the Hon'ble NGT on 08.09.2020. In light of the said Action Taken Report, Hon'ble NGT vide its order dated 11.09.2020 (attached as **Annexure I**) directed as follows:

*"...4. We are of the opinion that the recommendations of the Committee need to be followed. There is no objection to the report from any quarters. All concerned entities may take follow up action. The State PCBs/PCCs may take action to stop continuation violation of law and remedial action for the past violations, following due process of law. The compliance of the recommendations may be overseen by the concerned State PCBs/PCCs and CPCB jointly. CPCB may furnish further action taken report after collecting information from all the concerned oil refineries/State PCBs/PCCs..."*

## **Actions taken by the Central Pollution Control Board (CPCB):**

In this connection, CPCB has issued a letter dated 22.09.2020 (attached as **Annexure II**) and requested 19 SPCBs/PCCs to comply with the recommendations as directed by the Hon'ble NGT vide its order dated 11.09.2020, and take necessary actions against the defaulting units (spent catalyst generator/utilizer/recyclers) in accordance with HOWM Rules, 2016 and submit the Action Taken Report.

Subsequently, CPCB also directed all the oil refineries to comply with the recommendations as directed by Hon'ble NGT vide its order dated 11.09.2020, in addition to that co-ordinate with other oil refineries and prepare a uniform Standard Operating Procedure (SoP) for "*E-auctioning of hazardous and other waste including spent catalyst across the country*" and submit the Compliance report along-with said SoP for finalization, vide letter dated 22.09.2020 (attached as **Annexure III**).

Thereafter, CPCB has issued a reminder mail on 07.11.2020, to 15 SPCBs/PCCs for submission of Action Taken Report. CPCB also issued reminder letter on 06.01.2021, to 06 SPCBs/PCCs (Haryana, Punjab, Delhi, Maharashtra, Tamil Nadu and Uttar Pradesh) for submission of Action Taken Report in response of CPCB letter dated 22.09.2020. CPCB further issued a reminder letter on 09.02.2021 to 02 SPCBs (TNPCB and UPPCB) for submission of Action Taken Report.

CPCB has examined the responses received from SPCBs/PCCs and oil refineries and tabulated the information in Table – 1 and Table – 2, respectively as below:

**Table – 1: Action Taken Report (ATR) received from SPCBs/PCCs**

<b>Sr. No.</b>	<b>SPCBs/PCCs</b>	<b>Actions taken/Compliances</b>
1.	Assam Pollution Control Board (APCB) submitted the ATR vide letter dated 28.10.2020	<ul style="list-style-type: none"><li>i. The Board had directed all the petroleum refineries located in the State to handle / manage spent catalyst generated by each of the unit in accordance with the HOWM Rules, 2016 and transfer/sale such waste only to agencies having valid authorization for utilization of the same.</li><li>ii. Records of hazardous waste generation, storage and disposal have been verified and reports submitted to CPCB.</li><li>iii. As follow up action the Board has subsequently directed all the refineries to submit detailed compliance status in accordance with</li></ul>

		<p>Hon'ble NGT vide its order dated 11.09.2020.</p> <p>iv. M/s IOCL, Digboi Refinery has been directed to stop activities which do not conform with HOWM Rules, 2016 specifically with respect to sale and transfer of spent catalyst.</p> <p>v. APCB submitted that further follow up action shall be initiated accordingly.</p>
2.	<p>Andhra Pradesh Pollution Control Board (APPCB) submitted ATR vide letter dated 28.10.2020</p>	<p>i. APPCB informed that they have issued proper hazardous waste Authorization under Rule 6 of HOWM Rules, 2016 to M/s. Hindustan Petroleum Corporation Limited: HPCL (Visakha refinery), Visakhapatnam, for handling and management of spent catalyst clearly mentioning the category (4.2 of Schedule I), quantity (1202 MT/Year) and disposal method (to authorized re-processors, Recyclers &amp; TSDF).</p> <p>ii. In case of recyclers/utilizers of spent catalyst, APPCB informed that no such facilities are existing in the jurisdiction of Andhra Pradesh.</p> <p>iii. It was also informed that another unit namely; M/s Andhra Petrochemicals, Vishakhapatnam is generating spent catalyst and disposing the same to authorized recyclers/utilizers situated outside the State.</p> <p>iv. APPCB has verified the Form 3, Form 4 and Form 10 of the above said spent catalyst generators. APPCB also verified and submitted the authorization granted by concerned State where the spent catalyst is sold or transferred.</p>
3.	<p>Bihar Pollution Control Board (BPCB) submitted ATR vide letter dated 12.11.2020</p>	<p>i. BSPCB issued authorization in accordance with HOWM Rules, 2016 in Form-2.</p> <p>a. The authorization includes category of hazardous waste, quantity and mode of disposal or recycling or utilization or co-processing, etc.</p> <p>b. The previous authorization granted by the Board under the Hazardous Waste (Management, Handling &amp; Trans-boundary Movement) Rules, 2008 vide Board's letter dated-15.07.2014 was valid for a period of five years and based on unit's</p>

		<p>application for quantity of spent catalyst generation 6201 TPA.</p> <p>c. Board has granted/renewed authorization vide letter dated-01.02.2019 (Amended vide ref. no.B-2787, dated-16.06.2020) for the generation of spent catalyst: 1980 TPA (RFCCU &amp; recyclable process spent catalyst).</p> <p>ii. BSPCB informed that they are committed for its compliance/imposing financial penalty on all the defaulting units (generators/utilizers/recyclers) for procedural violations in accordance with the “Guidelines on Implementing Liabilities for Environmental Damages due to Handling &amp; Disposal of Hazardous Wastes and Penalty” and as per Rule 23 of HOWM Rules, 2016”.</p> <p>Presently, there is no observation/record for damage caused to the environment or third party due to improper handling and management of hazardous and other wastes.</p> <p>iii. BSPCB has verified Form-3, Form-4 and Form-10 of the IOCL Barauni Refinery and informed that unit has generated spent catalyst in the range of 969 to 1980 MTA which is within the authorized quantity i.e. spent catalyst generation =&lt;1980 TPA as per authorization granted.</p> <p>Therefore, M/s IOCL Barauni Refinery, Barauni, Begusarai has channelized all generated RFCCU spent catalyst including its backlog quantity within 90 days hence imposition of Environmental Compensation (EC) is not applicable for the period of 2018-19 &amp; 2019-20.</p> <p>However, the unit has stored the hazardous waste (spent catalyst) more than 90 days during 2017-18 and hence may be liable for Environmental Compensation (EC) against the procedural violation in nature and do not cause damage to environment and third party.</p> <p>iv. BSPCB informed that 2513 MT of generated spent catalyst was kept more than 90 days and hence unit is liable to pay financial</p>
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		penalty and EC in accordance of HOWM Rules, 2016.												
4.	Chhattisgarh Environment Conservation Board (CECB) submitted ATR vide letter dated 02.11.2020	<p>i. CECB informed that there are no oil refineries established in Chhattisgarh.</p> <p>ii. Action will be taken if any unauthorized recycler found to procure spent catalyst from oil refineries or fertilizer units.</p> <p>iii. CECB vide letter dated 16.09.2020 provided response of CPCB letter dated 23.07.2020. The information regarding inspection and verification of industries procuring spent catalyst is as below:</p> <table border="1"> <thead> <tr> <th>Name of Industry</th> <th>Authorization details, Category and Quantity of HW</th> <th>Compliance status during inspection</th> </tr> </thead> <tbody> <tr> <td>M/s Refracast Metallurgicals Pvt. Ltd., Unit I, Raipur</td> <td>Valid up to 03.10.2024 Spent Catalyst (Schedule IV, Sr. No. 10) 3000 MT/Yr</td> <td>During 2019-20 the industry has not procured any spent catalyst from oil refineries.</td> </tr> <tr> <td>M/s Refracast Metallurgicals Pvt. Ltd., Unit II, Raipur</td> <td>Valid up to 06.04.2025 Spent Catalyst (Schedule IV, Sr. No. 10) 3000 MT/Yr</td> <td>During inspection unit was found to procure 419.315 MT of spent catalyst. Out of 419.315, 113.485 MT had been procured from fertilizer industries and remaining 305.83 MT procured from oil refineries.</td> </tr> <tr> <td>M/s Refmet Technology Pvt.; Ltd., Raipur</td> <td>Valid up to 30.08.2024 Spent Catalyst containing copper, nickel and zinc of 1000</td> <td>No spent catalyst generated from oil refineries has been procured during year 2019-20.</td> </tr> </tbody> </table>	Name of Industry	Authorization details, Category and Quantity of HW	Compliance status during inspection	M/s Refracast Metallurgicals Pvt. Ltd., Unit I, Raipur	Valid up to 03.10.2024 Spent Catalyst (Schedule IV, Sr. No. 10) 3000 MT/Yr	During 2019-20 the industry has not procured any spent catalyst from oil refineries.	M/s Refracast Metallurgicals Pvt. Ltd., Unit II, Raipur	Valid up to 06.04.2025 Spent Catalyst (Schedule IV, Sr. No. 10) 3000 MT/Yr	During inspection unit was found to procure 419.315 MT of spent catalyst. Out of 419.315, 113.485 MT had been procured from fertilizer industries and remaining 305.83 MT procured from oil refineries.	M/s Refmet Technology Pvt.; Ltd., Raipur	Valid up to 30.08.2024 Spent Catalyst containing copper, nickel and zinc of 1000	No spent catalyst generated from oil refineries has been procured during year 2019-20.
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			MT, 3000 MT and 500 MT per year respectively (Schedule IV, Sr. no. 10)	
		M/s Arth Metallurgical Pvt. Ltd., Raipur	Spent Catalyst containing cobalt and nickel of 900 MT and 1500 MT per year respectively (Schedule IV, Sr. no. 10)	As per inspection of Form 4 and Form 10 469 MT of spent catalyst was found to be procured from oil refineries.
		M/s Ashtdhatu Ferro Metals Pvt. Ltd., Raipur	Valid up to 09.12.2023 Spent Catalyst containing cobalt and nickel of 1080 MT and 1500 MT per year respectively (Schedule IV, Sr. no. 10)	No spent catalyst generated from oil refineries has been procured during year 2019-20.
5.	Delhi Pollution Control Committee (DPCC)	DPCC has not provided any response of CPCB letter dated 22.09.2020. However, DPCC already informed that in absence of spent catalyst generating and recycling/re-processing units it shall be considered nil in Delhi vide letter dated 23.06.2020.		
6.	Gujarat Pollution	i. GPCB has issued letter dated 19.10.2020 to all Unit Heads and Regional Officers to issue proper authorization to all generator/		

	<p>Control Board (GPCB) submitted ATR vide mail dated 03.12.2020</p>	<p>utilizers/ recyclers and to clearly mention category, quantity and disposal method of waste in authorization.</p> <p>ii. GPCB submitted that Gujarat is having 42 authorized spent catalyst utilizer/recyclers authorized under Schedule-IV of HOWM Rules, 2016. GPCB has issued letter vide no. GPCB/HAZ-GEN-705/570366 dated 19/10/2020 to 42 authorized utilizers/ recyclers to ensure management, handling and procurement of hazardous and other waste including spent catalyst as per authorization granted to them.</p> <p>iii. In regards to imposition of Financial Penalty, GPCB has proposed to levy Financial Penalty of Rs. 1 lakh only per violation from each defaulting units. GPCB vide mail dated 02.12.2020 sought approval from CPCB for imposition of Financial Penalty as per provisions of Rule –23(2) of HOWM Rules, 2016. In response CPCB vide letter dated 04.12.2020 granted approval for imposition of the same.</p> <p>iv. GPCB also issued show cause notice under Environment (Protection) Act, 1986 to M/s IOCL, Vadodara and M/s Reliance Industries Limited, Jamnagar based on principle of natural justice prior levying Environmental Compensation vide their letter dated 02.12.2020 and 03.12.2020 respectively.</p>
7.	<p>Haryana State Pollution Control Board (HSPCB) vide mail dated 11.01.2021</p>	<p>i. As per recommendation of Hon'ble NGT order dated 11.09.2020, Panipat RO, HSPCB issued a show cause notice to IOCL, Panipat Refinery vide letter dated 25.09.2020.</p> <p>ii. Panipat RO, HSPCB calculated Financial Penalty of Rs. 4 lakh and Environmental Compensation of Rs. 58,56,000/- and vide letter dated 20.10.2020 submitted the proposal of imposing a total EC of Rs. 62,56,000/- (Rupees Sixty-two lakh fifty-six thousand only) to HSPCB-Head Office Panchkula for approval of competent authority.</p> <p>iii. HSPCB vide its order dated 18.01.2021 directed M/s IOCL, Panipat Refinery to deposit Rs. 62,56,000/- (Rupees Sixty-two lakh fifty-six thousand only) as Environmental Compensation.</p>

8.	Jammu Kashmir Pollution Control Board (JKPCB) submitted ATR vide letter dated 28.10.2020	<p>i. JKPCB submitted that there is only one unit i.e. M/s Shree Sita Ram Industries Pvt. Ltd., which is using spent catalyst in the manufacturing process, who has been issued proper authorization and pass book valid up to September, 2024 for handling and management of hazardous and other wastes in accordance of HOWM Rules, 2016.</p> <p>ii. The said unit has been issued authorization with conditions to ensure that procurement of hazardous and other wastes including spent catalyst as per authorization granted to him.</p>
9.	Karnataka State Pollution Control Board (KSPCB) submitted ATR vide letter dated 22.12.2020	<p>i. KSPCB submitted that M/s Mangalore Refineries and Petrochemicals (MRPL) located at Mangalore, Karnataka is the only oil refinery generating spent catalyst of categories 4.1, 4.2 and 4.5. The industry is disposing the spent catalyst for recycling to authorized recyclers and regularly submitting the manifest and Annual reports to the Board.</p> <p>ii. There are no other spent catalyst recycling/re-processing/recovery facilities in Karnataka State.</p>
10.	Kerala State Pollution Control Board (Kerala SPCB) submitted ATR vide letter dated 04.11.2020	<p>i. Kerala SPCB submitted that BPCL, Kochi Refinery is the only oil refinery generating spent catalyst in the State and having valid authorization for generation of spent catalyst. The industry is either disposing the spent catalyst through the secured landfill of common hazardous waste TSDF at Ambalamedu of KEIL which is a facility having authorization from Board or selling the spent catalyst to the recyclers through Metal Scrap Trading Company (MSTC) site only. MSTC ensures that only authorized vendors are taking part in the auction.</p> <p>ii. Kerala SPCB verified the detail of recyclers to which spent catalyst is sold from the manifest and annual reports submitted. The disposal is as per authorization under HOWM Rules, 2016 issued to BPCL, Kochi Refinery.</p> <p>iii. Kerala SPCB also submitted that there are no recyclers/utilizers of spent catalyst existing in the State and if any defaulting unit is found, financial penalty/environmental compensation shall be</p>

		imposed by the Board.																											
11.	Madhya Pradesh Pollution Control Board (MPPCB) submitted ATR vide letter dated 03.11.2020	<p>i. MPPCB submitted that they have issued authorization with duly mentioned category, quantity and disposal method of wastes.</p> <p>ii. Details of spent catalyst generation, procurement and disposal verified by MPPCB is as follows:</p> <table border="1"> <thead> <tr> <th rowspan="2">Name of unit</th> <th rowspan="2">HW Category</th> <th rowspan="2">Auth. Qty. (MTA)</th> <th colspan="2">Quantity (MT)</th> </tr> <tr> <th>Procured</th> <th>Disposed</th> </tr> </thead> <tbody> <tr> <td>M/s Bharat Oman Refineries Ltd. (generator)</td> <td>4.2 (Sch-I)</td> <td>1500</td> <td>--</td> <td>425.37</td> </tr> <tr> <td>M/s Premier Refractories India Pvt. Ltd. (utilizer)</td> <td>4.2 (Sch-I)</td> <td>15000</td> <td>3173</td> <td>Nil</td> </tr> <tr> <td>M/s Vyankatesh Metals &amp; Alloys Pvt. Ltd. (utilizer)</td> <td>S. No. 10 (Sch-IV)</td> <td>2000</td> <td>964</td> <td>Nil</td> </tr> <tr> <td>M/s Calderys Refractories Ltd. (utilizer)</td> <td>4.2 (Sch-I)</td> <td>5000</td> <td>Nil</td> <td>Nil</td> </tr> </tbody> </table> <p>iii. MPPCB submitted that no defaulting unit exist in Madhya Pradesh.</p>	Name of unit	HW Category	Auth. Qty. (MTA)	Quantity (MT)		Procured	Disposed	M/s Bharat Oman Refineries Ltd. (generator)	4.2 (Sch-I)	1500	--	425.37	M/s Premier Refractories India Pvt. Ltd. (utilizer)	4.2 (Sch-I)	15000	3173	Nil	M/s Vyankatesh Metals & Alloys Pvt. Ltd. (utilizer)	S. No. 10 (Sch-IV)	2000	964	Nil	M/s Calderys Refractories Ltd. (utilizer)	4.2 (Sch-I)	5000	Nil	Nil
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M/s Calderys Refractories Ltd. (utilizer)	4.2 (Sch-I)	5000	Nil	Nil																									
12.	Maharashtra Pollution Control Board (MPCB) submitted ATR vide letter dated 08.01.2020	<p>i. MPCB has submitted only information regarding generation of spent catalyst in the state of Maharashtra.</p> <p>ii. However, Compliance status have not been received in compliance of Hon'ble NGT order dated 11.09.2020.</p>																											
13.	Odisha State Pollution Control Board	OSPCB submitted ATR vide mail dated 01.12.2020 and as action taken OSPCB vide letter dated 27.11.2020 directed the IOCL, Paradip Refinery to comply with the directions of Hon'ble NGT order																											

	(OSPCB)	dated 11.09.2020.						
14.	Punjab Pollution Control Board (PPCB) submitted ATR vide letter dated 06.01.2021	<p>i. PPCB informed that there are 02 units in Punjab, which are involved in generation/recycling/reprocessing/utilization of spent catalyst.</p> <p>ii. Details of action taken report is given as below:</p> <table border="1"> <thead> <tr> <th>Name of unit</th> <th>Actions taken</th> </tr> </thead> <tbody> <tr> <td>M/s HPCL-Mittal Energy Ltd., Bhatinda (Generator)</td> <td> <p>a. PPCB vide letter dated 23.11.2020 imposed an Environmental Compensation of Rs. 3.0 lakhs (Rupees Three Lakhs) only against the industry for various violations mentioned in Hon'ble NGT order dated 11.09.2020.</p> <p>b. PPCB vide letter dated 26.11.2020 issued directions to the unit for compliance of Hon'ble NGT order dated 11.09.2020.</p> <p>c. So far, industry has not deposited EC however, filed an appeal on 03.12.2020 against PPCB order dated 23.11.2020 before Competent Authority of Board, which is under consideration of the Board.</p> </td> </tr> <tr> <td>M/s Lakhdata Petrochemicals, Bhatinda (Recycler)</td> <td> <p>a. PPCB vide letter dated 05.01.2021 imposed an Environmental Compensation of Rs. 6.0 lakhs (Rupees Six Lakhs) only against the industry for various violations mentioned in Hon'ble NGT order dated 11.09.2020.</p> <p>b. Also, PPCB vide letter dated 26.11.2020 directed the unit to ensure procurement of spent catalyst may be done in future as per authorization granted to the industry i.e. category 4.2 only, failing which appropriate action will be taken as per HOWM Rules, 2016.</p> </td> </tr> </tbody> </table>	Name of unit	Actions taken	M/s HPCL-Mittal Energy Ltd., Bhatinda (Generator)	<p>a. PPCB vide letter dated 23.11.2020 imposed an Environmental Compensation of Rs. 3.0 lakhs (Rupees Three Lakhs) only against the industry for various violations mentioned in Hon'ble NGT order dated 11.09.2020.</p> <p>b. PPCB vide letter dated 26.11.2020 issued directions to the unit for compliance of Hon'ble NGT order dated 11.09.2020.</p> <p>c. So far, industry has not deposited EC however, filed an appeal on 03.12.2020 against PPCB order dated 23.11.2020 before Competent Authority of Board, which is under consideration of the Board.</p>	M/s Lakhdata Petrochemicals, Bhatinda (Recycler)	<p>a. PPCB vide letter dated 05.01.2021 imposed an Environmental Compensation of Rs. 6.0 lakhs (Rupees Six Lakhs) only against the industry for various violations mentioned in Hon'ble NGT order dated 11.09.2020.</p> <p>b. Also, PPCB vide letter dated 26.11.2020 directed the unit to ensure procurement of spent catalyst may be done in future as per authorization granted to the industry i.e. category 4.2 only, failing which appropriate action will be taken as per HOWM Rules, 2016.</p>
Name of unit	Actions taken							
M/s HPCL-Mittal Energy Ltd., Bhatinda (Generator)	<p>a. PPCB vide letter dated 23.11.2020 imposed an Environmental Compensation of Rs. 3.0 lakhs (Rupees Three Lakhs) only against the industry for various violations mentioned in Hon'ble NGT order dated 11.09.2020.</p> <p>b. PPCB vide letter dated 26.11.2020 issued directions to the unit for compliance of Hon'ble NGT order dated 11.09.2020.</p> <p>c. So far, industry has not deposited EC however, filed an appeal on 03.12.2020 against PPCB order dated 23.11.2020 before Competent Authority of Board, which is under consideration of the Board.</p>							
M/s Lakhdata Petrochemicals, Bhatinda (Recycler)	<p>a. PPCB vide letter dated 05.01.2021 imposed an Environmental Compensation of Rs. 6.0 lakhs (Rupees Six Lakhs) only against the industry for various violations mentioned in Hon'ble NGT order dated 11.09.2020.</p> <p>b. Also, PPCB vide letter dated 26.11.2020 directed the unit to ensure procurement of spent catalyst may be done in future as per authorization granted to the industry i.e. category 4.2 only, failing which appropriate action will be taken as per HOWM Rules, 2016.</p>							
15.	Rajasthan	i. RSPCB submitted details of units given as below:						

Pollution Control Board (RPCB) submitted ATR vide letter dated 28.12.2020	Name of unit	Spent catalyst Authorization			
		Operation	Category	Qty.	Validity
	M/s Mittal Pigments Pvt. Ltd., Kota	Recovery of metal	1.6, 3.1, 4.2 and 4.5 of Schedule I	4500 MTA	29.02.2024
	M/s Ravindra Heraeus Pvt. Ltd., Udaipur	Recycling/ Processing	1.6 and 4.2 of Schedule I	2887.50 MTA	31.12.2022
	M/s Choksi Heraeus Pvt. Ltd., Udaipur	Recycling/ Processing	1.6 of Schedule I	1800 MTA	31.08.2023
M/s Arham Industries, Bharatpur	Recycling/ Processing	4.2 of Schedule I	1800 MTA	31.08.2025	

ii. Along-with letter, RSPCB has submitted inspection report of above mentioned industries and it was observed that these inspection has been carried out for grant of authorization.

iii. The inspection reports are included with air quality monitoring, process and stack observation, APCD assessment, etc.

iv. Annual Returns submitted by RSPCB were tabulated as below:

<i>Unit</i>	<i>Year</i>	<i>Procured Quantity (MT)</i>	<i>Utilized Quantity (MT)</i>	<i>Stock Stored (MT)</i>
M/s Mittal Pigments Pvt. Ltd., Kota	2018-19	0	0	0
M/s Ravindra Heraeus Pvt. Ltd., Udaipur	2019-20	64.20 & 43.04 (previous stock)	66.86	40.38
M/s Choksi Heraeus Pvt. Ltd., Udaipur	2019-20	69.08 & 9.25 (previous stock)	78.33	00
M/s Arham Industries, Bharatpur	2019-20	647.02 & 406.32 (previous stock)	780.19	273.15

16.	Tamil Nadu Pollution Control Board (TNPCB)	Compliance status have not been received in compliance of Hon'ble NGT order dated 11.09.2020.										
17.	Telangana State Pollution Control Board (TSPCB) submitted ATR vide letter dated 13.10.2020	<p>i. TSPCB submitted that there are no oil refineries and spent catalyst utilizers/recyclers exist in State of Telangana.</p> <p>ii. TSPCB is issuing hazardous waste authorization along with CFO clearly mentioning the type of waste generated, category of the waste (Schedule no.) as per HOWM Rule, 2016, quantity of waste generated and disposal option for the waste generated.</p> <p>iii. All hazardous waste recyclers are directed that procurement of hazardous and other waste shall be in accordance with the authorization granted to them duly following the manifest copies.</p> <p>iv. As there are no utilizers/recyclers in Telangana which are using spent catalyst and no oil refineries, no such penalty is being imposed.</p>										
18.	Uttar Pradesh Pollution Control Board	Compliance status have not been received in compliance of Hon'ble NGT order dated 11.09.2020										
19.	West Bengal Pollution Control Board (WBPCB) submitted ATR vide letter dated 12.11.2020	<p>i. WBPCB submitted that they have already issued authorization to M/s IOCL, Haldia Refinery and M/s Ganesh Steel &amp; Alloys Ltd. in accordance of HOWM Rules, 2016.</p> <p>ii. Actions have been taken in accordance of recommendation vide Hon'ble NGT order dated 11.09.2020 for imposition of Financial Penalty and Environmental Compensation. Necessary directions issued to both defaulting units and both units have deposited Financial Penalty and Environmental Compensation amount to WBPCB. Details are given below:</p> <table border="1" data-bbox="539 1736 1353 2016"> <thead> <tr> <th rowspan="2">Name of unit</th> <th rowspan="2">Direction issued</th> <th colspan="2">Amount deposited (in Rs.)</th> </tr> <tr> <th>Fin. Pen.</th> <th>EC</th> </tr> </thead> <tbody> <tr> <td>M/s IOCL, Haldia Refinery</td> <td>WBPCB letter dated 13.10.2020</td> <td>1,00,000/- (One lakh only)</td> <td>3,90,000/- (Three lakh ninety thousand only)</td> </tr> </tbody> </table>	Name of unit	Direction issued	Amount deposited (in Rs.)		Fin. Pen.	EC	M/s IOCL, Haldia Refinery	WBPCB letter dated 13.10.2020	1,00,000/- (One lakh only)	3,90,000/- (Three lakh ninety thousand only)
Name of unit	Direction issued	Amount deposited (in Rs.)										
		Fin. Pen.	EC									
M/s IOCL, Haldia Refinery	WBPCB letter dated 13.10.2020	1,00,000/- (One lakh only)	3,90,000/- (Three lakh ninety thousand only)									

			M/s Ganesh Steel & Alloys Ltd.	WBPCB letter dated 13.10.2020	3,00,000/- (Three lakh only)	33,05,010/- (Thirty Three lakh five thousand ten only)	
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**Table -2: Compliance of recommendations of Hon'ble NGT order dated 11/09/2020 pertaining to oil refineries**

Sr. No.	Name & Address Refinery	Recommendation no. and its compliance submitted by the unit
1.	M/s Hindustan Petroleum Corporation Limited (HPCL), Visakha Refinery, Malkapuram, Visakhapatnam,	<p><b>2.</b> Disposing hazardous wastes including spent catalyst to the authorized utilizers/recyclers in accordance with HOWM Rules, 2016.</p> <p><b>4.</b> HPCL-Visakha Refinery is ensuring proper packaging and labeling of hazardous and other waste as per Rule 17 of HOWM Rules, 2016.</p> <p>Further, a dedicated hazardous waste transit storage facility with adequate space for safe storage of hazardous wastes is available at HPCL-Visakha Refinery.</p> <p><b>5.</b> Maintaining the records of hazardous wastes in the prescribed formats viz., Form-3, Form-4 and Form10 as per HOWM Rules, 2016.</p> <p>Form-4 &amp; Form-10 are submitted to SPCB in line with HOWM Rules, 2016.</p> <p><b>8.</b> With regards to formulating (SOP), HPCL-Visakha Refinery humbly submits that the same shall be done under the guidance and leadership of either CPCB or SPCB. HPCL-Visakha Refinery will extend wholehearted support in the process of developing uniform SOP.</p>
2.	M/s Oil & Natural Gas Corporation (ONGC), Tatiphaka	<p>The industry had already informed that there is no use/generation of spent catalyst in the premises. However, in compliance of NGT recommendations, the unit again submitted following:</p> <p><b>2.</b> No catalytic process in the refinery and so there is no</p>

	Refinery, East Godavari District PIN-533249, Andhra Pradesh	generation of spent catalyst. <b>4 &amp; 5.</b> Waste oil generated in the Refinery is transported to centralized location at Narsapur and E-auctioned. Spent/Used Batteries are returned to the suppliers under buyback policy. Accordingly, Form-4 has submitted to APPCB every year. <b>8.</b> Not applicable as we have no generation of spent catalyst.
3.	M/s Indian Oil Corporation Limited, Digboi Refinery, Digboi-786171	<b>2.</b> Shall be complied as recommended. <b>4.</b> Proper packaging and labeling as per Rule 4 of HOWM Rules, 2016 is being complied. <b>5.</b> Shall be complied as recommended. <b>8.</b> A committee has been constituted by IOCL, Refineries Headquarters, New Delhi, for the development of a Uniform Standard Operating Procedure (SoP) for implementation across the refineries of IOCL. Accordingly, the common SoP will be submitted to CPCB in Nov, 2020.
4.	M/s Indian Oil Corporation Limited Guwahati Refinery, Noonmati Guwahati-781020, Assam	<b>2.</b> The spent catalysts generated are disposed to authorized agency through e-auction, facilitated by Metal Scrap Trade Corporation Limited (MSTC), Kolkata. The oily sludge generated is centrifuged for oil recovery and residual cake is bio remediated with microbes supplied by IOCL, R&D. It is ensured that hazardous and other wastes are disposed in scientific manner or to the authorized utilizers/recyclers in accordance of HOWM Rules, 2016. <b>4.</b> Spent catalysts generated at Guwahati Refinery are packed in sealed CS drums and stored in a designated location. All the drums are labeled to identify the type of spent catalyst stored in the drum. However labeling of the drum shall be ensured in the Form 8 as per Rule 17 of HOWM Rules, 2016 in future. <b>5.</b> Maintains the records of generation of hazardous wastes including spent catalysts in Form-3 and Form-4 annually and submits to Pollution Control Board, Assam (PCBA) with the

		<p>Annual Return under HOWM Rules, 2016.</p> <p>Copies of manifest for the spent catalysts disposed are maintained in Form-10 and a copy of the same has submitted to Pollution Control Board, Assam, as and when spent catalysts are disposed</p> <p><b>8.</b> A committee has been constituted at Refinery Head Quarters of Indian Oil Corporation Limited, New Delhi to develop a Standard Operating Procedure (SoP) for E-auctioning of Hazardous and other wastes including spent catalysts. The SoP shall be uniformly implemented across all the refineries of IOCL.</p>
5.	<p>M/s Numaligarh Refinery P.O. Numaligarh Refinery Project Dist. Golaghat, Assam</p>	<p><b>2.</b> Hazardous waste being disposed off to the authorized recycler only by e-auction. Spent catalyst unloaded from reactors during the RTA-2015 was sold to Refracast Metallurgicals (P) Ltd. Raipur, who are authorized recycler/ re-processor approved by State Pollution Control Board of Chhattisgarh.</p> <p><b>4.</b> Drums are properly labelled with type of catalyst, drum no. etc. on the drum. Labelling shall be done as per Rule 17 of HOWM Rules, 2016 in future. Noted for compliance.</p> <p><b>5.</b> Mandatory records of hazardous waste including spent catalyst generation, annual return and disposing are maintained as per Form-3, Form-4 and Form-10. As per guidelines Form-4 is submitted every year to SPCB.</p> <p><b>8.</b> Generates mainly oily sludge &amp; spent catalyst as hazardous waste. Bioremediation has been done to oily sludge and spent catalyst sold to authorized recyclers only.</p>
6.	<p>M/s Indian Oil Corporation Limited Bongaigaon refinery, PO Dhaligaon, Dist- Chirang Pin- 783385, Assam</p>	<p><b>2, 4 &amp; 5.</b> Being Complied</p> <p><b>8.</b> SOP is presently being prepared by IOCL, Refinery Head Quarter, Delhi for all Indian Oil Refineries. The same will be followed at BGR.</p>

7.	M/s Indian Oil Corporation, Barauni Oil Refinery, Dist- Begusari-85114, Bihar	<p><b>2.</b> Spent catalyst has disposed off through authorized utilizers/recyclers in accordance of HOWM Rules, 2016.</p> <p><b>4.</b> RFCC spent catalyst is stored in water proof jumbo poly bags. Others spent catalysts are stored in closed metallic drums. All spent catalysts are stored at designated covered storage area with proper labeling clearly indicating source of generation, technical name of HW etc. as per Rule 4 of HOWM Rules, 2016.</p> <p><b>5.</b> Records of hazardous and other wastes including spent catalyst are being maintained in Form-3, Form-4 and Form-10 already submitted to BSPCB.</p> <p><b>8.</b> Barauni refinery is disposing hazardous waste as per Standard Operating Procedure, however for uniformity among all IOCL Refineries, development of uniform SoP w.r.t disposal of hazardous waste is under preparation.</p>
8.	M/s Reliance Industries Ltd., Meghpar, Dist. Jamnagar, Gujarat-361142	<p>Both units of Reliance Industries limited submitted following:</p> <p><b>2.</b> All the hazardous wastes generated from the refinery have been approved by GPCB for their collection, storage, transportation and disposal. It has endeavored to utilize the hazardous waste generated to the maximum extent possible in a scientific manner. Accordingly, procedures have been set for utilizing the wastes for re-refining, metal extraction and alternate fuel &amp; raw material (AFR) as per the potential. Some wastes which do not have potential for reuse/utilization, are disposed in a scientific manner through approved secured landfill or incineration facility. All the HW generated at site is disposed strictly in accordance with HOWM Rules 2016 and necessary records are maintained.</p>
9.	M/s Reliance Industries Limited, “A Unit-Reliance Jamnagar SEZ” P.O. Reliance Greens, Motikhavadi, Jamnagar-361142,	<p><b>4.</b> The requirements of HOWM Rules 2016 are complied with during collection, storage, transportation and disposal of HW at the refinery site. The HW is stored in dedicated areas with suitable packaging scientifically based on the characteristics of the waste. The wastes generated in the refinery are typically stored in tanks, sealed drums, jumbo bags etc. The storage of the</p>

		<p>collected HW is done in dedicated storage facilities created for the purpose of storage of those wastes. All the packaging is properly labeled for identification of the wastes.</p> <p><b>5.</b> Maintains all the records as per the requirements of HOWM Rules, 2016. The records of the generation of HW and its disposal are maintained on a daily, monthly and annual basis as per the requirements. These records can be made available to the authorities for inspection/scrutiny whenever asked for. As per requirements, the forms are submitted to the GPCB in a timely manner.</p> <p><b>8.</b> For the disposal of HW we have entered in to agreement with authorized TSDF facility which is also a prerequisite for grant of consent by GPCB. The disposal of HW to potential re-users/utilizers is done through an established procedure for E-auctioning. All the procedures implemented at the refinery are robust and sufficiently matured.</p>
10.	<p>M/s Essar Oil Limited, Vadinar Refinery, Po. Khambhaliya, Dist. Jamnagar, Gujarat-361305</p>	<p><b>2.</b> M/s Nayara Energy Limited is disposing off Spent Catalyst in scientific manner by selling them only to Pollution Control Board authorized actual recyclers.</p> <p>We will continue to follow the same practice in future also in compliance with HOWM Rules, 2016.</p> <p><b>4.</b> Refinery has dedicated hazardous waste storage sheds with 11600 m<sup>2</sup> area with HDPE linear facility at the bottom for storage facility. Spent catalyst is properly packed in MS Drums/Jumbo bags and labelled properly in the units itself and then only shifted to the central storage facility.</p> <p>The same practice will be followed in future strictly in compliance with HOWM Rules, 2016</p> <p><b>5.</b> Nayara Energy is maintaining all records as per HOWM Rules, 2016 and timely submitted to the respective regulatory authorities.</p> <p><b>8.</b> Nayara Energy has their own SoP for disposal of all types of hazardous and other wastes which is being followed for E-</p>

		auctioning.
11.	M/s Indian Oil Corporation Limited , Gujarat Refinery, P.O. Jawaharnagar Vadodara-391320, Gujarat	<p><b>2.</b> It is being ensured by checking HW passbook as well as Authorization/consent copy of each and every vendor participating in E-auction process.</p> <p><b>4.</b> Proper packaging and labeling of hazardous wastes as per Rule 17 of HOWM Rules, 2016 is being ensured for all upcoming generating lot of hazardous wastes. Presently, a storage facility for around 5000 drums of spent catalyst at refinery premises which is being maintained as per Rule 4 of HOWM rules, 2016 for safe and environmentally sound management of hazardous and other wastes.</p> <p><b>5.</b> All mandatory records like Form-3, Form-4 and Form-10 as prescribed in HOWM Rules, 2016 are being maintained for all categories of hazardous wastes.</p> <p><b>8.</b> Presently, SoP for E-auctioning of spent catalyst is available and being followed at Gujarat refinery. However, uniform SoPs for E-auctioning of all hazardous wastes including spent catalyst is under preparation centrally by a committee formed by Refinery Headquarter-HSE.</p>
12.	M/s Indian Oil Corporation Limited, Panipat Refinery, Village Baholi ,Refinery Road, Panipat- 132410, Haryana	<p><b>2.</b> Hazardous and other wastes generated from Panipat Refinery and Panipat Naptha Cracker has given to authorized utilizers/ recyclers for disposal in scientific manner in accordance of HOWM Rules, 2016.</p> <p>Only authorized recycles/utilizers having the prequalification documents (Authorization, CTO &amp; Passbook) are allowed to participate for the auction. To ensure the same, all the documents submitted by the bidders towards pre-qualification criteria are checked before placement of the sale order. In addition to above, PRPC also has a Captive Secured land Fill (SLF) facility for disposal of Hazardous Waste wherein the disposal of Hazardous Waste is done in accordance with HOWM Rules, 2016.</p> <p><b>4.</b> IOCL, Panipat Refinery is in compliance with Rule 4 of HOWM Rules 2016 and ensures the packaging and labeling of</p>

		<p>hazardous and other wastes as prescribed.</p> <p><b>5.</b> All the required forms are properly maintained and filled by Panipat Refinery and Petrochemical Complex on regular basis without any lapse.</p> <p><b>8.</b> Standing Operating Procedure (SOP) for e-auctioning of hazardous and other waste, including spent catalyst is available and maintained at Panipat Refinery and Petrochemical Complex on regular basis. Copy of the SOP was also shared with the Joint Committee during their site inspection on 18.08.2020.</p>
13.	<p>M/s Mangalore Refineries and Petroleum Ltd., Kuthethur, Mangalore Taluk, D K District, Karnataka</p>	<p><b>2.</b> The refinery ensures the disposal of hazardous and other waste in scientific manner to authorized utilizers/ recyclers in accordance of HOWM Rules, 2016.</p> <p><b>4.</b> MRPL adheres to Rule 17 for proper packaging and labelling and Rule 4 for safe and environmentally sound management of hazardous and other wastes as per HOWM Rules, 2016. A dedicated hazardous waste shed of adequate storage for storage of hazardous and other wastes has provided.</p> <p><b>5.</b> Form-3, Form-4 and Form-10 as prescribed in HOWM Rules-2016 has been maintained and followed at MRPL.</p> <p><b>8.</b> MRPL has a well-established procedure for E-auctioning which covers spent catalysts disposal meeting all the requirements of HOWM Rules, 2016.</p>
14.	<p>M/s BPCL Kochi Refinery, PB No. 2, Ambalamugal, Kochi, Ernakulam – 682 302 Kerala</p>	<p>BPCL Kochi has not submitted compliance of recommendation of Hon'ble NGT as directed vide CPCB letter dated 22.09.2019.</p>
15.	<p>M/s Bharat Oman Refineries Limited (BORL), Administrative building Refinery complex, Post</p>	<p><b>2.</b> Disposing hazardous and other waste including spent catalyst to authorized recyclers in accordance with HOWM Rules, 2016.</p> <p><b>4.</b> Packing and labelling the hazardous and other wastes including spent catalyst as per the rule 17 of HOWM Rules, 2016. A designated hazardous waste storage facility having adequate storage has already provided for the safe and</p>

	BORL Residential complex, BINA, Dist : Sagar - 470124, Madhya Pradesh	environmentally sound management of the Hazardous and other wastes as per Rule 4 of HOWM Rules, 2016. <b>5.</b> Form-3, Form-4 and Form-10 as prescribed in HOWM Rules-2016 has been maintained in the prescribed format in HOWM Rules, 2016. <b>8.</b> Standard operating Procedure for E- auctioning of Hazardous and Other Waste including spent catalyst has prepared and followed.
16.	M/s Hindustan Petroleum Corporation Ltd., Mahul, Chembur, Mumbai -400074, Maharashtra	<b>2.</b> The spent catalyst is disposed off to the authorized utilizers/recyclers in accordance with HOWM Rules, 2016. <b>4.</b> Ensures proper packaging and labelling of hazardous and other waste including spent catalyst as provided in HOWM Rules, 2016. Provided storage facility for safe and environmentally sound management of hazardous and other wastes as per HOWM Rules, 2016. <b>5.</b> Maintained the record of hazardous waste including spent catalyst viz., Form-3, Form-4 and Form-10 as prescribed in HOWM Rules, 2016. Form-4 & Form-10 are filed with SPCB periodically as per HOWM Rules, 2016. <b>8.</b> Disposes the hazardous waste including spent catalyst to the recyclers/re-processors through MSTC platform by e-auctioning. During the process, the parties who have been registered with CPCB/SPCB as recyclers/re-processors and having valid authorization by SPCBs are only allowed to participate for bidding. Also, ensures verification of SPCB authorization document of recycler/re-processor before lifting the catalyst. Thus, sufficient precaution is taken to ensure that the hazardous waste is handed over to authorized recyclers/re-processors only. As regards to formulating Standard Operating Procedure, it is humble submission that the same shall be done under the guidance and leadership of either SPCB or CPCB. HPCL-Mumbai will cooperate in this initiative.
17.	M/s Bharat Petroleum	<b>2, 4 &amp; 5.</b> Complied.

	Corporation Limited Mumbai Refinery, Mahul, Mumbai 400074, Maharashtra	<b>8.</b> BPCL submitted copy of SoP for E-auctioning of hazardous and other waste including spent catalyst.
18.	M/s Indian Oil Corporation, IOCL Paradip Refinery, P.O. Jhimani, Via-Kujang, Jagatsinghpur- 754141,	<b>2.</b> All hazardous waste generated at Paradip Refinery are disposed as per the methodology defined in HW authorization granted by the SPCB, Odisha and to the authorised utilisers/ recyclers in accordance of HOWM Rules, 2016. <b>4.</b> Packaging and labelling of hazardous and other waste as per Rule 17 of HOWM Rules. Packaging of hazardous waste is done in properly (e.g. Drums/ Jumbo bags). Labelling of hazardous waste is done in accordance to Form-8 of HOWM Rules, 2016. Spent catalyst is stored in the intermediate storage facility warehouse (well ventilated shed with impervious floor) before final disposal through co-processor/ recyclers or disposal in captive secured landfill facility. <b>5.</b> Mandatory records of hazardous waste are maintained in Form-3, Form-4 and Form-10 and submitted annually to SPCB, Odisha along with annual return. <b>8.</b> A committee has been constituted by HSE IOCL-Refineries Headquarters, New Delhi for the development of the Uniform SOP to implement across all the refineries of IOCL.
19.	M/s HPCL-Mittal Energy Limited, (Guru Gobind Singh Refinery), Village Phullo Khari, Taluka: Talwandisaboo, Distt. Bathinda, PIN-151301 , Punjab	<b>2.</b> Spent catalyst is disposed off only to the authorized recyclers. <b>4.</b> Stickers have been provided at site for labeling of hazardous waste containers after proper packaging, Adequate storage sheds have been provided in SLF area for storage of hazardous waste. <b>5.</b> Records of hazardous waste generation was updated in Form-3 whenever hazardous waste was generated, However as advised by CPCB team during site visit on 22/10/2020, Form 3 is updated on daily basis. Annual return is being submitted to PPCB in Form-4 as per frequency mentioned in HOWM Rules, 2016. Record of hazardous waste disposal is updated in Form 10 as per HOWM Rules, 2016.

		<p><b>8.</b> SoP submitted for disposal of hazardous waste by the unit ensuring safe disposal within time frame.</p>
20.	<p>M/s Chennai Petroleum Corporation Ltd, Manali Maanali village, Madhavaram Taluk, Tiiruvallur District, Tiiruvallur - 600068, Tamil Nadu</p>	<p><b>2.</b> Spent catalyst generated are disposed either to authorized recyclers through e-auctioning or to Tamil Nadu Waste Management Limited (TNWML), TSDF the only authorized site by SPCB in accordance with HOWM Rules, 2016.</p> <p><b>4.</b> After unloading, spent catalyst are kept in sealed containers with proper labelling as per Rule no.17 of HOWM, Rules 2016. CPCL is having dedicated hazardous storage shed for storing disposable spent catalyst before transferring to TNWML site. Recyclable spent catalyst are shifted to warehouse immediately after unloading.</p> <p><b>5.</b> Form-3 is being maintained based on the daily stock of spent catalyst and Form-4 has filled &amp; submitted to SPCB before 30<sup>th</sup> June of every year.</p> <p>Form-10 is maintained as and when the hazardous waste is sent outside in line with HOWM Rules, 2016.</p> <p><b>8.</b> A committee has been constituted by CPCL for the development of a Uniform Standard Operating Procedure (SoP) for e-auctioning of hazardous waste and other waste including spent catalyst.</p>
21.	<p>M/s Chennai Petroleum Corporation Ltd, Cauvery Basin Refinery, Panangudi, Nagapattinam District-611002, Tamil Nadu</p>	<p>CPCL, Nagapattinam informed vide mail dated 05.01.2021 that CPCL-CBR production was stopped since 01.04.2019 for the purpose of installing new gross root refinery from 1.0 MMTPA to 9.0 MMTPA.</p> <p>We have disposed 7.83 MT of spent resin on 30.10.2014 to TNWML (TSDF), Gummidipoondi, Chennai during the financial year 2014-15, after that no resin has been generated and disposed.</p> <p>Catalyst were not used for CBR operations.</p> <p>Form 3 and Form 4 submitted also doesn't mention generation or disposal of spent catalyst.</p>
22.	<p>M/s Indian Oil</p>	<p><b>2.</b> Disposes off hazardous waste scientifically in accordance with</p>

	<p>Corporation Limited, , P.O.Mathura Refineries, Mathura-281006, Uttar Pradesh</p>	<p>HOWM Rules 2016. Spent catalyst is disposed off through authorized TSD/ recyclers and oily sludge is disposed of through bioremediation. We also take this opportunity to clarify that generation of spent catalyst depends on the catalyst life and severity of process. Therefore, life of catalyst and hence generation of spent catalyst varies from year to year depending on process severity. Spent catalyst generation in 2017-18 was nil and in 2015-16 &amp; 2016-17 was also minimum. However, spent catalyst generated in 2018-19 was on higher side.</p> <p><b>4.</b> Have adequate and dedicated storage space for hazardous wastes which are stored in properly sealed drums.</p> <p><b>5.</b> Maintains all mandatory records.</p> <p><b>8.</b> Disposes off hazardous spent catalyst by e-auctioning only through e-auctioning platform of Material &amp; Scrap Trading Corporation, a PSU of Govt. of India as per procedure given in our material manual. In the light of NGT order, a committee has been constituted by HSE, IOCL, Refineries Headquarters, New Delhi, for the development of a uniform Standard Operating Procedure (SoP) for implementation across the refineries of IOCL.</p>
23.	<p>M/s Indian Oil Corporation Limited- P.O. Haldia Refinery, Dist, Medinipore (E). Pin 721606 , West Bengal</p>	<p><b>2.</b> Hazardous waste such as Spent Catalyst, Spent Adsorbent, Waste or residues containing oil, Spent Ion Exchange resins, Residual oil sludge are disposed from Haldia Refinery through authorized Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSD/ SDF) in scientific manner.</p> <p>Only Spent Catalyst generated from Hydro processing units is disposed off through SPCB authorized recyclers through e-auctioning. It is being ensured by checking HW passbook as well as Authorization/ consent copy of each and every vendor participating in E-auction process</p> <p><b>4.</b> Proper packaging and labelling of drums of hazardous waste is being followed. For all upcoming lots of hazardous spent catalyst, labelling shall be ensured as per Rule-17 of HOWM</p>

	<p>Rules 2016.</p> <p>Spent catalyst from Hydro-processing units are generated during M&amp;I shutdown of respective units and these materials, in inner lined seal drums, are stored in designated area for their safe disposal within in permissible period.</p> <p>Uniform SoP being finalized to comply disposal within permissible period of 90 days from the date of generation of hazardous waste.</p> <p>5. All mandatory records such as Form-3 and Form-10 are maintained on a regular basis. Form-4 - "Form for filling Annual Returns" is submitted to WBPCB before 30<sup>th</sup> June of every year</p> <p>8. SoP for E-auctioning of hazardous and other waste including spent catalyst is in progress centrally by IOCL Refineries Headquarter - Health, Safety &amp; Environment (HSE) and shall be finalized by Nov, 20. This uniform SoP shall be followed uniform across IOCL Refineries.</p>
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### **Compliance verification by CPCB:**

Inspection of various unit in Chhattisgarh was carried out by Sh. Anil C. Ranveer, Additional Director, CPCB jointly with Chhattisgarh Environment Conservation Board for compliance verification of spent catalyst recycling/utilization.

During visits, following spent catalyst recyclers/re-processors/utilizers were inspected and the observations are as follows:

**Table 3: Joint Inspection carried out of spent catalyst recyclers/re-processors/utilizers located in the state of Chhattisgarh**

<b>Sr. No.</b>	<b>Name &amp; address of unit</b>	<b>Observations</b>
(1)	M/s Refracast Metallurgical (P.) Ltd. (Unit-I & Unit-II) 22 Industrial Area Bhanpuri, PO: Birgaon, Raipur, Chhattisgarh	The unit was inspected on 17.12.2020 by Anil C. Ranveer (Additional Director, CPCB), Ms. Chandrika Kanwan, (Scientist, CECB, Raipur) and Sanjay Singh (Lab Assistant, CECB, Raipur). i. The unit has obtained CTO and Authorization under

		<p>HOWM Rules, 2016 from CECB for recycling of spent catalyst.</p> <p>ii. The unit has installed Environmental Data display board but the information regarding hazardous waste generation was not updated.</p> <p>iii. The Unit-I was observed non-operational and under maintenance. Unit-II is operational at the time of inspection.</p> <p>iv. The unit has submitted Form-3 which is maintained on procurement basis of spent catalyst.</p> <p>v. The process of metal recycling through spent catalyst involves roasting and pyro-metallurgical process and finished product in alloy form.</p> <p>vi. The unit has passbook issued by CECB for procurement and recycling of hazardous waste.</p> <p>vii. The unit does not have a dedicated hazardous waste storage area for hazardous waste storage and for finished product.</p> <p>viii. Detail inspection report of M/s Refracast Metallurgical (P.) Ltd. (Unit-I &amp; Unit-II) is attached as <b>Annexure-IV</b>.</p>
(2)	<p>M/s Refmet Technologies (P.) Ltd Village- Pacheda, Arang, District Raipur, Chhattisgarh</p>	<p>The unit was inspected on 17.12.2020 by Anil C. Ranveer (Additional Director, CPCB), Ms. Chandrika Kanwan, (Scientist, CECB, Raipur) and Sanjay Singh (Lab Assistant, CECB, Raipur).</p> <p>i. The unit has obtained CTO and Authorization under HOWM Rules, 2016 from CECB for recycling of spent catalyst.</p> <p>ii. The unit was not in operation at the time of inspection.</p> <p>iii. The unit had installed Environmental Data at entry gate but the information regarding hazardous waste</p>

		<p>generation was not updated.</p> <p>iv. The unit has not submitted Form-3 and Form-10 as the unit representative inform that they are not procuring spent catalyst since 2014.</p> <p>v. However, the unit is recycling vanadium concentrate for recovery of vanadium penta-oxide without authorization.</p> <p>vi. Form 4 submitted for 2019-20 verified that no procurement of spent catalyst for that year.</p> <p>vii. The process of metal recycling is pyro-metallurgical.</p> <p>viii. The unit does not have a dedicated hazardous waste storage area for hazardous waste storage.</p> <p>ix. Detail inspection report of M/s Refmet Technologies (P.) Ltd. is attached as <b>Annexure-V</b>.</p>
(3)	<p>M/s Arth Metallurgicals Pvt Ltd. Plot No 95/2, Khasra No. 226/1, Village-Lalpur, District Raipur, Chhattisgarh</p>	<p>The unit was inspected on 18.12.2020 by Anil C. Ranveer (Additional Director, CPCB), Ms. Chandrika Kanwan, (Scientist, CECB, Raipur) and Sanjay Singh (Lab Assistant, CECB, Raipur).</p> <p>i. The unit has obtained CTO and Authorization under HOWM Rules, 2016 from CECB for recycling of spent catalyst.</p> <p>ii. The unit has installed Environmental Data display board but the information regarding hazardous waste generation was not updated.</p> <p>iii. The unit was in operation at the time of inspection.</p> <p>iv. The unit has submitted Form-3 which is maintained on procurement basis of spent catalyst. Record was maintained as per Form-3 of HOWM Rules, 2016.</p> <p>v. The spent catalyst (raw material) was found stored in MS Drums during inspection. The storage area was not</p>

		<p>properly marked.</p> <p>vi. The process of metal reclamation through spent catalyst involves Hydro-metallurgical process.</p> <p>vii. It was observed that there is gap of around 260 MT spent catalyst being reflected in annual return submitted by unit for year 2018-19.</p> <p>viii. The unit has maintained passbook issued by CECB for procurement and recycling of hazardous waste.</p> <p>ix. Detail inspection report of M/s Arth Metallurgicals Pvt Ltd. is attached as <b>Annexure-VI</b>.</p>
(4)	<p>M/s Ashtadhatu Ferro Metals Pvt. Ltd.  Village Tarasiw,  Gaitra Road, Tehsil-Tilda,  District Raipur,  Chhattisgarh</p>	<p>The unit was inspected on 18.12.2020 by Anil C. Ranveer (Additional Director, CPCB), Ms. Chandrika Kanwan, (Scientist, CECB, Raipur) and Sanjay Singh (Lab Assistant, CECB, Raipur).</p> <p>i. The unit has obtained CTO and Authorization under HOWM Rules, 2016 from CECB for recycling of spent catalyst.</p> <p>ii. The unit has installed Environmental Data display board but the information regarding hazardous waste generation was not updated.</p> <p>iii. The unit was in operation at the time of inspection.</p> <p>iv. The unit has submitted Form-3 which is maintained on procurement basis of spent catalyst. Record was maintained as per Form-3 of HOWM Rules, 2016.</p> <p>v. The spent catalyst (raw material) was found stored in MS Drums during inspection. The storage area was not properly marked.</p> <p>vi. The process of metal reclamation is Pyro-metallurgical process.</p> <p>vii. As per Annual Return (Form – 4) submitted by unit for</p>

		<p>year 2019-20 it was observed that the unit has not procured &amp; utilized any Spent Catalyst. However, 1939.83 MT of Spent Aluminum Dross Residue and 500.11 MT of Dross &amp; Waste from salts sludge have been utilized for manufacturing Aluminum Ingot &amp; Synthetic Slag respectively, as per authorization.</p> <p>viii. The unit has maintained passbook issued by CECB for procurement and recycling of hazardous waste.</p> <p>ix. Detail inspection report of M/s Ashtadhatu Ferro Metals Pvt. Ltd. is attached as <b>Annexure-VII</b>.</p>
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### **Observations:**

1. As informed by SPCBs/PCCs, they have issued proper authorization in accordance of HOWM Rules, 2016, clearly mentioning the category, quantity and disposal method of hazardous waste.
2. As informed by oil refineries they are disposing off their hazardous and other waste including spent catalyst in scientific manner or to the authorized utilizers/recyclers in accordance of HOWM Rules, 2016.
3. As informed by SPCBs they have directed Recyclers/utilizers in concerned state to ensure that procurement of hazardous and other waste including spent catalyst shall be as per authorization granted to them.
4. As informed by oil refineries they are ensuring proper packaging and labelling of hazardous and other waste as per Rule 17 of HOWM Rules, 2016 and also providing adequate storage facility for safe and environmentally sound management of hazardous and other wastes as per Rule 4 of HOWM Rules, 2016.
5. As informed by SPCBs/PCCs, they have directed generators/utilizers/recyclers of hazardous waste including spent catalyst to maintain records like Form-3, Form-4 and Form-10 as prescribed in HOWM Rules, 2016. As per the information submitted by Oil Refineries to CPCB, they are complying with the Hon'ble NGT order dated 11.09.2020 and HOWM Rules, 2016.

6. Compliance status submitted to CPCB by oil refineries has been verified by the APPCB, BSPCB, GPCB, KSPCB, Kerala SPCB, MPPCB and WBPCB where oil refineries are operational and found complied, but 04 SPCBs namely APCB, HSPCB, OSPCB and PPCB have not verified the compliance status of Oil refineries and 03 SPCBs namely MPCB, TNPCB and UPPCB have not submitted any compliance status of Hon'ble NGT order dated 11.09.2020 and HOWM Rules, 2016.
7. In regards to imposition of Financial Penalty and Environmental Compensation as recommended in Hon'ble NGT order dated 11.09.2020, status on action taken by concerned SPCBs are as below:
  - i. HSPCB has imposed Financial Penalty and Environmental Compensation on IOCL-Panipat Refinery for violation of HOWM Rules, 2016.  
However, IOCL-Panipat Refinery have not yet deposited Financial Penalty and Environmental Compensation as imposed by HSPCB.
  - ii. UPPCB has not yet imposed any Financial Penalty and Environmental Compensation on IOCL-Mathura Refinery and IFFCO Bareilly for violation of HOWM Rules, 2016.
  - iii. BSPCB has verified quantity of hazardous waste (spent catalyst) stored more than 90 days in the premises of BPCL, Barauni Refinery during 2017-18 as 2513 MT instead of 5252 MT as informed by the unit earlier. However, BSPCB has not yet imposed any Financial Penalty and Environmental Compensation for violation of Rule 8 of HOWM Rules, 2016.
  - iv. GPCB has imposed Financial Penalty on Reliance, Jamnagar, Gujarat for procedural violations of HOWM Rules, 2016. However, Reliance, Jamnagar, Gujarat have not yet deposited Financial Penalty as imposed by GPCB.  
GPCB has not yet imposed any Environmental Compensation on IOCL, Vadodara, Gujarat for illegal disposal of 28.835 MT of spent catalyst to unauthorized utilizer but Financial Penalty has been imposed for procedural violations of HOWM Rules, 2016.
  - v. APCB has not yet imposed any Financial Penalty and Environmental Compensation on IOCL-Digboi Refinery for violation of HOWM Rules, 2016
  - vi. PPCB has imposed Environmental Compensation on HPCL, Bhatinda and M/s Lakhdata Petrochem, Bhatinda for violation of HOWM Rules, 2016.

However, HPCL, Bhatinda and M/s Lakhdata Petrochem, Bhatinda have not yet deposited Environmental Compensation as imposed by PPCB. Thus HPCL, Bhatinda and M/s Lakhdata Petrochem, Bhatinda have not complied with Hon'ble NGT order dated 11.09.2020.

vii. WBPCB has imposed Financial Penalty and Environmental Compensation on IOCL, Haldia Refinery and M/s Ganesh Steel & Alloys Ltd. for violation of HOWM Rules, 2016. Both the units have deposited the Financial Penalty and Environmental Compensation as imposed by WBPCB, thus both the units have complied with Hon'ble NGT order dated 11.09.2020.

8. All the Oil Refineries of IOCL, HPCL, BPCL, Reliance, CPCL, Essar, NRL, MRPL and BORL have submitted different types of Standard Operating Procedure (SoP) for E-auctioning of hazardous and other waste including spent catalyst for finalization of uniform SoP across the country.
9. In addition to the above, CPCB found 04 recyclers namely M/s Refracast Metallurgical (P.) Ltd. (Unit-I & Unit-II), M/s Arth Metallurgicals Pvt Ltd. and M/s Ashtadhatu Ferro Metals Pvt. Ltd., who are violating Rule 4 and Rule 17 of HOWM Rules, 2016 and M/s Refmet Technologies (P.) Ltd, Raipur is found operational and processing vanadium concentrate/sludge illegally without authorization from CECB.

**Recommendations:**

1. SPCBs/PCCs shall be directed to ensure regular compliance of HOWM Rules, 2016 for handling, management and disposal of spent catalyst in their State. In case of inter-state movement, SPCBs/PCCs shall ensure that reconciliation of Manifest (Form-10) submitted by unit shall clearly mention category and quantity of hazardous waste including spent catalyst.
2. Financial Penalty and Environmental Compensation shall be imposed on defaulting Oil Refineries/recyclers/utilizers operating in the State of U.P., Bihar, Gujarat, Assam and Chhattisgarh by concerned SPCBs/PCCs in compliance of Hon'ble NGT order dated 11.09.2020 and violation of HOWM Rules, 2016
3. PPCB shall be directed to ensure deposition of Financial Penalty and Environmental Compensation as imposed on HPCL, Bhatinda and M/s Lakhdata Petrochem, Bhatinda for violation of HOWM Rules, 2016 in compliance of Hon'ble NGT order dated 11.09.2020.

4. HSPCB shall be directed to ensure deposition of Financial Penalty and Environmental Compensation as imposed on IOCL-Panipat Refinery for violation of HOWM Rules, 2016 in compliance of Hon'ble NGT order dated 11.09.2020
5. All the Oil refineries shall be directed to prepare uniform Standard Operating Procedure (SoP) in collaboration with all oil refineries of IOCL, HPCL, BPCL, Reliance, CPCL, Essar, NRL, MRPL and BORL for E-auctioning of hazardous and other waste including spent catalyst across the country in accordance of HOWM Rules, 2016.
6. Chhattisgarh Environment Conservation Board shall be directed to take necessary action on the defaulting units in accordance with HOWM Rules, 2016 for violations observed as below:
  - (i) M/s Refmet Technologies (P.) Ltd, Raipur, for operating without authorization for recycling of hazardous waste.
  - (ii) M/s Refracast Metallurgical (P.) Ltd. (Unit-I & Unit-II), M/s Arth Metallurgicals Pvt Ltd. and M/s Ashtadhatu Ferro Metals Pvt. Ltd., for not maintaining packaging & labelling and not having adequate storage facility for safe & environmentally sound management of hazardous waste as per Rule 17 and Rule 4 of HOWM Rules, 2016 respectively.
7. TNPCB, MPCB and UPPCB shall be directed to submit compliance status of Hon'ble NGT order dated 11.09.2020.

\*\*\*\*\*

Item No. 10

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

(By Video Conferencing)

Original Application No. 67/2020

(With report dated 08.09.2020)

Nathan Chaudhary

Applicant(s)

Versus

State of GNCTD &amp; Ors.

Respondent(s)

Date of hearing: 11.09.2020

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

Applicant(s): Mr. R.K. Goel, Advocate

Respondent(s): Mr. Balendu Shekhar, Advocate for CPCB  
Mr. Raj Kumar, Advocate for DPCC  
Mr. Rahul Khurana, Advocate for HSPCB

**ORDER**

1. Grievance in this application is against unscientific disposal of spent catalysts (Oxide), which is under the category of hazardous waste within the range of item no. 1.1 to 4.5 of the Schedule 1 of the Hazardous and other Waste Rules, 2016, by Panipat refinery and Digboi refinery. The violation takes place in selling, handling, storing and transporting the said waste illegally. The applicant has relied upon an earlier order of the Tribunal dated 02.11.2015 in *Original Application No. 284/2015, Jugal Kishore v. Union of India & Ors.*, directing as follows:

**“1. There shall be no transfer/sale of Spent Catalysts (Alumina Containing) to any bidder/persons who plans to dispose of the spent catalyst by using it as a raw material without having approval from the CPCB as envisaged under Rule 11 of the HW Rules.**

**2. The respondent no. 3 is restrained from entering into or executing any such deal with the bidder/persons who plans to dispose of the spent catalyst by using it as a raw material without having approval from the CPCB as envisaged under Rule 11 of the HW Rules.”**

2. On 20.03.2020, considering the above, a factual and action taken report was sought from the CPCB, Punjab State PCB, Haryana State PCB, West Bengal State PCB, Assam State PCB and the DPCC with reference to compliance of direction of this Tribunal by the concerned entities in the said States. CPCB was to be the nodal agency for the purpose.

3. Accordingly, CPCB has filed its action taken report on 08.09.2020. CPCB asked the concerned State PCBs/PCCs where oil refineries were operational to provide information about generation, storing, handling and selling of spent catalyst in the oil refineries. A six-member Committee was constituted which included CPCB, DPCC, WBPCB, PPCB, HSPCB and ASPCB to conduct inspection for furnishing the factual and action taken report to this Tribunal. The report mentions the data compiled from 19 State PCBs/PCCs and 23 oil refineries. The Committee held three meetings and conducted random inspection of some refineries. The observations and recommendations of the Committee are as follows:

**“Observations:**

1. ***It was found that category of spent catalyst, quantity and disposal method is not defined clearly in the authorization granted by the concerned SPCB in case of IOCL Panipat and some other oil refineries.***
2. ***IOCL Panipat, Haryana, IOCL Mathura Refinery, Uttar Pradesh, IOCL Barauni, Bihar, Reliance Jamnagar, Gujarat are generating Spent catalyst 8505.215 MT, 518.82 MT, 5202 MT and 407 MT respectively, which are exceeding the authorised quantity of spent catalyst given in the authorization by the concerned SPCB during the last 3 years, which is violations of HOWM Rules, 2016.***
3. *During the inspection of the committee, it was found that approximately 400 MT of spent catalyst was stored in the*

storage yard of IOCL Panipat. Upon verification of Form-3 and Form-10, it was found that **IOCL Panipat has stored 1950 MT of spent catalyst more than 90 days which is violation of Rule 8 of HOWM Rules, 2016.**

4. IOCL Digboi, Assam not maintaining the manifest records for assessing the actual quantity of generation and disposal of spent catalyst for last 3 years. But we found one manifest entry that **they have sold 68.332 MT of spent catalyst to unauthorized utilizer namely Ganesh Steel and Alloys Ltd., West Bengal in August 2016. In this case, IOCL Digboi, Assam and Ganesh Steel and Alloys Ltd., West Bengal are violating HOWM Rules, 2016.**
5. Similarly, IOCL Vadodara and IOCL Haldia are generating 1506.2 MT and 4482.37 MT of spent catalyst respectively in last 3 years. **Out of it IOCL Vadodara and IOCL Haldia have sold 28.835 MT and 13 MT respectively to illegal utilizers namely, Ganesh Steel and Alloys Ltd., West Bengal, who is not authorized to process this spent catalyst.**
6. It was also observed the fertilizer industry-**IFFCO, Bareilly, UP. sold their spent catalyst to the unauthorized utilizer namely, Lakhdata Petrochem, Bhatinda (Punjab), who is not authorized to process this spent catalyst. Therefore, both units violating HOWM Rules, 2016.**
7. **All the 23 oil refineries are not maintaining generation of spent catalyst (Form-3) and manifest (Form-IO) as per HOWM Rules, 2016. In result of that we are not able to verify actual quantity of generation and disposal of spent catalyst.**
8. During the inspection of joint committee, it was found that, the **IOCL Panipat, HPCL Bhatinda and IOCL Digboi, are not maintaining packaging and labelling of hazardous and other waste as per Rule 17 of HOWM Rules, 2016. In addition to that these units (except HPCL-Mittal refinery, Bhatinda Punjab) also not having adequate storage facility for safe and environmentally sound management of hazardous and other wastes as per Rule 4 of HOWM Rules, 2016.**
9. **Generally, oil refineries do not examine the eligibility of recyclers/utilizers of spent catalyst as per HOWM Rules, 2016 before E-auctioning through MSTC.**
10. No information received from Andhra Pollution Control Board regarding generation and utilization of spent catalyst in the state.
11. No information received from Rajasthan Pollution Control Board, Chhattisgarh Environment Conservation Board and Telangana State Pollution Control Board, regarding re-processor/ utilizers of spent catalyst in the state.

**Recommendations:**

1. **SPCBs/PCCs shall be directed to issue proper authorization for handling and management of hazardous and other waste in accordance of HOWM Rules, 2016 to generators/utilizers/recyclers, clearly mentioning the category, quantity and disposal method.**
2. **All oil refineries generating hazardous waste including spent catalyst shall ensure to dispose off their hazardous and other waste in scientific manner or to the authorized utilizers/recyclers in accordance of HOWM Rules, 2016.**
3. **Recyclers/utilizers shall be directed to ensure that procurement of hazardous and other waste including spent catalyst as per authorization granted to them.**
4. **All oil refineries generating hazardous waste including spent catalyst shall ensure proper packaging and labelling of hazardous and other waste as per Rule 17 of HOWM Rules, 2016 and also ensure adequate storage facility for safe and environmentally sound management of hazardous and other wastes as per Rule 4 of HOWM Rules, 2016.**
5. **All generators/utilizers/recyclers of hazardous waste including spent catalyst shall maintain mandatory records like Form-3, Form-4 and Form-IO as prescribed in HOWM Rules, 2016.**
6. **Financial Penalty shall be imposed on all the defaulting units (generators/utilizers/recyclers) for procedural violations listed in CPCB "Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Wastes and Penalty" and as per Rule 23 of HOWM Rules, 2016.**
7. **Environmental Compensation shall be imposed on defaulting units (generators/utilizers/recyclers) for violating HOWM Rules, 2016 as per CPCB guideline "Enforcement Framework for Effective Implementation of HOWM Rules, 2016" as listed below:**
  - i. **IOCL Panipat, Haryana for excess quantity of 8505.215 MT of spent catalyst as against authorized quantity in last 3 financial years and storing 1950 MT of spent catalyst for more than 90 days within the premises;**
  - ii. **IOCL Mathura Refinery, Uttar Pradesh for excess quantity of 518.82 MT of spent catalyst as against authorized quantity in the year 2018-19;**
  - iii. **IOCL Barauni, Bihar for excess quantity of 5252 MT of spent catalyst as against authorized quantity in the year 2018-19;**

- iv. Reliance Jamnagar, Gujarat for excess quantity of 407 MT of spent catalyst as against authorized quantity in the year 2018-19;**
  - v. IFFCO, Bareilly, UP. for illegal sold of 27.39 MT of spent catalyst to unauthorized recycler/utilizer i.e. Mis Lakhdata Petrochem, Bhatinda, Punjab;**
  - vi. IOCL Digboi for illegal sold of 68.332 MT of spent catalyst to unauthorized recycler/utilizer i.e. Ganesh Steel and Alloys Pvt. Ltd. (West Bengal);**
  - vii. IOCL Haldia for illegal sold of 13 MT of spent catalyst to unauthorized recycler/utilizer i.e. Ganesh Steel and Alloys Pvt. Ltd. (West Bengal);**
  - viii. IOCL Vadodara for illegal sold of 28.835 MT of spent catalyst to unauthorized recycler/utilizer i.e. Ganesh Steel and Alloys Pvt. Ltd. (West Bengal);**
  - ix. M/s Lakhdata Petrochem (Bhatinda) for procuring and processing 27.39 MT of spent catalyst of category 18.1 of Schedule-I of HOWM, Rules 2016 without authorization in the year 2019-20;**
  - x. M/s Ganesh Steel and Alloys Pvt. Ltd. (West Bengal) for procuring and processing 110.167 MT of spent catalyst without authorization.**
- 8. All the spent catalyst generator i.e., Oil refineries shall be directed to prepare uniform Standard Operating Procedure (SoP) for E-auctioning of hazardous and other waste including spent catalyst across the country.”**

4. We are of the opinion that the recommendations of the Committee need to be followed. There is no objection to the report from any quarters. All concerned entities may take follow up action. The State PCBs/PCCs may take action to stop continuation violation of law and remedial action for the past violations, following due process of law. The compliance of the recommendations may be overseen by the concerned State PCBs/PCCs and CPCB jointly. CPCB may furnish further action taken report after collecting information from all the concerned oil refineries/State PCBs/PCCs before the next date by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. It is not necessary for individual State

PCB/PCCs/Oil refinery or other entities to appear unless they are aggrieved by the order of the State PCB/PCC/CPCB in which case, they are at liberty to take remedies in accordance with law.

5. IA No. 129/2020 for interim directions does not survive in view of the above order and stands disposed of.

List for further consideration on 18.01.2021.

A copy of this order be forwarded to the CPCB, DPCC, WBPCB, PPCB, HSPCB and ASPCB by e-mail for compliance.

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

September 11, 2020  
Original Application No. 67/2020  
(I.A. No. 129/2020)  
DV



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

TIME BOUND  
NGT MATTER

SPEED POST

F.No.-B-29016/NGT-67/20/WM-II Div./AR/6275-6293 September 22, 2020

To,

The Member Secretary  
(as per list enclosed)

**Sub: Compliance of Hon'ble National Green Tribunal order dated 11.09.2020 in the matter of O.A. No. 67/2020; Nathan Chaudhary vs State of GNCTD & Ors.-reg.**

Sir,

This has reference to the matter of unscientific handling, management and disposal of spent catalyst generated from various processes of the oil refineries. In this regard, Hon'ble National Green Tribunal (NGT) in O.A. No. 67/2020; in the matter Nathan Chaudhary vs State of GNCTD & Ors. vide its order dated 20.03.2020, sought a factual and action taken report from the committee comprising officials of Central Pollution Control Board, Punjab State Pollution Control Board, Haryana State Pollution Control Board, West Bengal State Pollution Control Board, Assam State Pollution Control Board and Delhi Pollution Control Committee.

Hon'ble NGT passed an order on 11.09.2020 (copy enclosed) directing following:

*"...We are of the opinion that the recommendations of the Committee need to be followed. There is no objection to the report from any quarters. All concerned entities may take follow up action. The State PCBs/PCCs may take action to stop continuation violation of law and remedial action for the past violations, following due process of law. The compliance of the recommendations may be overseen by the concerned State PCBs/PCCs and CPCB jointly. CPCB may furnish further action taken report after collecting information from all the concerned oil refineries/State PCBs/PCCs ..."*

In view of above, you are requested to comply with the recommendation number 1, 3, 6 and 7 as directed by the Hon'ble NGT vide its order dated 11.09.2020, in addition to that SPCBs/PCCs may also take necessary actions against the defaulting units (spent catalyst generator/utilizer/recyclers) other than defaulting units listed in the said order in accordance with HOWM Rules, 2016 and submit the Action Taken Report to this office in one month (i.e. positively by 30.10.2020) so as to enable CPCB to prepare consolidated action taken report for submission before Hon'ble NGT.

Yours faithfully,

(Abhey Singh Soni)

Additional Director & Head  
Waste Management Division – II

Encl.: As Above

केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
निर्गत .....  
दिनांक 22/09/20

o/c

S. No.	Name & Address of State Boards
1.	The Member Secretary Assam Pollution Control Board Bamunimaiden, Guwahati – 781021
2.	The Member Secretary Haryana Pollution Control Board C-11, Sector-6 Panchkula Haryana-134 109 Chandigarh
3.	The Member Secretary Punjab Pollution Control Board Vatavaran Bhawan, Nabha Road Patiala – 147 001
4.	The Member Secretary West Bengal Pollution Control Board Paribesh Bhawan, 10A, Block- LA, Sector III, Salt Lake City, Calcutta- 700106
5.	The Member Secretary Delhi Pollution Control Committee 4th Floor, ISBT Building, Kashmere Gate, Delhi - 110006.
6.	The Member Secretary Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada – 520 010
7.	The Member Secretary Bihar Pollution Control Board Parivesh Bhawan, Plot No. NS-B/2 Patliputra Industrial Area, Patliputra, Patna (Bihar)-800023
8.	The Member Secretary Gujarat Pollution Control Board Paryavaran Bhawan, Sector 10-A, Gandhi Nagar - 382010
9.	The Member Secretary Karnataka State Pollution Control Board, Parisara Bhavana, 1 <sup>st</sup> to 5 <sup>th</sup> Floor 49, Church Street, Bengaluru – 560 001
10.	The Member Secretary Kerala Pollution Control Board Pattom Palace, P.O. Thiruvananthapuram – 695 004

11.	The Member Secretary Maharashtra Pollution Control Board Kalptaru Point, 2 <sup>nd</sup> - 4 <sup>th</sup> floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai – 400 022
12.	The Member Secretary Madhya Pradesh Pollution Control Board Paryavaran Parisar, Sector E-5, Aera Colony, Bhopal – 462 016
13.	The Member Secretary State Pollution Control Board, Odisha Paribesh Bhawan, A-118, Nilakantha Nagar, Unit-VIII, Bhubaneswar – 751 012.
14.	The Member Secretary Tamil Nadu Pollution Control Board No. 76, Mount Salai Guindy, Chennai – 600 032
15.	The Member Secretary Uttar Pradesh Pollution Control Board Building No TC-12V Vibhuti Khand, Gomti Nagar Lucknow – 226 010
16.	The Member Secretary Chhattisgarh Environment Conservation Board Paryavas Bhawan, North Block Sector-19, Naya Raipur (C.G.)- 490099
17.	The Member Secretary Jammu & Kashmir State Pollution Control Board Shiekh-ul-Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar (J&K)
18.	The Member Secretary Telangana Pollution Control Board Paryavaran Bhawan, A-III Institutional Estate, Sanathnagar Hyderabad – 500018.
19.	The Member Secretary Rajasthan Pollution Control Board 4, Institutional Area, Jhalana Doongri Jaipur – 302 004, Rajasthan.



केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
CENTRAL POLLUTION CONTROL BOARD  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

TIME BOUND  
NGT MATTER

SPEED POST

F.No.-B-29016/NGT-67/20/WM-II Div./AR/6335-6357 September 22, 2020

To,

Unit Head,  
(As per List Attached)

Sub: Compliance of Hon'ble National Green Tribunal order dated 11.09.2020 in the matter of O.A. No. 67/2020; Nathan Chaudhary vs State of GNCTD & Ors.-reg.

Sir,

This has reference to the matter of unscientific handling, management and disposal of spent catalyst generated from various processes of the oil refineries. In this regard, Hon'ble National Green Tribunal (NGT) in O.A. No. 67/2020; in the matter Nathan Chaudhary vs State of GNCTD & Ors. vide its order dated 20.03.2020, sought a factual and action taken report from the committee comprising officials of Central Pollution Control Board, Punjab State Pollution Control Board, Haryana State Pollution Control Board, West Bengal State Pollution Control Board, Assam State Pollution Control Board and Delhi Pollution Control Committee.

Hon'ble NGT passed an order on 11.09.2020 (copy enclosed) directing following.

"...We are of the opinion that the recommendations of the Committee need to be followed. There is no objection to the report from any quarters. All concerned entities may take follow up action. The State PCBs/PCCs may take action to stop continuation violation of law and remedial action for the past violations, following due process of law. The compliance of the recommendations may be overseen by the concerned State PCBs/PCCs and CPCB jointly. CPCB may furnish further action taken report after collecting information from all the concerned oil refineries/State PCBs/PCCs..."

"...8. All the spent catalyst generator i.e., Oil refineries shall be directed to prepare uniform Standard Operating Procedure (SoP) for E-auctioning of hazardous and other waste including spent catalyst across the country..."

In view of above, you are directed to comply with the recommendation number 2, 4, 5 and 8 as directed by Hon'ble NGT vide its order dated 11.09.2020, in addition to that co-ordinate with other oil refineries and prepare a uniform SoP for "E-auctioning of hazardous and other waste including spent catalyst across the country" and submit the Compliance report alongwith said SoP for finalization to this office in one month (i.e. by 30.10.2020) so as to enable CPCB to prepare further action taken report for submission before Hon'ble NGT.

Yours faithfully,

(Abhey Singh Soni)

Additional Director & Head  
Waste Management Division - II

Encl.: As Above

केन्द्रीय प्रदूषण नियंत्रण बोर्ड  
निर्गत  
दिनांक 22/9/2020

O/c

### List of Oil Refineries

S. No.	Name and Address of Oil Refinery
1	M/s. Hindustan Petroleum Corporation Limited, Visakha Refinery, Malkapuram, Visakhapatnam,
2	M/s Oil & Natural Gas Corporation, Tatiphaka Refinery, East Godavari District PIN-533249, Andhra Pradesh
3	M/s Indian Oil Corporation Limited, Digboi Refinery, Digboi-786171
4	M/s Indian Oil Corporation Limited Guwahati Refinery, Noonmati Guwahati-781020, Assam
5	M/s Numaligarh Refinery P.O. Numaligarh Refinery Project Dist. Golaghat, Assam
6	M/s Indian Oil Corporation Limited Bongaigaon refinery, PO Dhaligaon, Dist-Chirang Pin-783385, Assam
7	M/s Indian Oil Corporation, Barauni Oil Refinery, Dist- Begusari-85114, Bihar
8	M/s RELIANCE INDUSTRIES Ltd. Meghpar, Meghpar, Dist. Jamnagar, Gujarat-361142
9	M/s Reliance Industries Limited, "A Unit-Reliance Jamnagar SEZ" P.O. Reliance Greens, Motikhavadi, Jamnagar-361142,
10	M/s Essar Oil Limited, Vadinar Refinery, Po. Khambhaliya, Dist. Jamnagar, Gujarat-361305
11	M/s Indian Oil Corporation Limited , Gujarat Refinery, P.O. Jawaharnagar Vadodara-391320, Gujarat
12	M/s Indian Oil Corporation Limited, Panipat Refinery, Refinery Road, Panipat-132410, Haryana
13	M/s Mangalore Refineries and Petroleum Ltd., Kuthethur, Mangalore Taluk, D K District,
14	M/s BPCL Kochi Refinery, PB No. 2, Ambalamugal, Kochi, Ernakulam – 682 302 Kerala
15	M/s Bharat Oman Refineries Limited, Administrative building Refinery complex, Post BORL Residential complex, BINA, Dist : Sagar -470124, Madhya Pradesh
16	M/s Hindustan Petroleum Corporation Ltd., Mahul, Chembur, Mumbai -400074, Maharashtra
17	M/s Bharat Petroleum Corporation Limited Mumbai Refinery, Mahul, Mumbai 400074, Maharashtra
18	M/s Indian Oil Corporation, IOCL Paradip Refinery, P.O. Jhimani, Via-Kujang, Jagatsinghpur-754141,
19	M/s HPCL-Mittal Energy Limited, (Guru Gobind Singh Refinery), Village Phullo Khari, Taluka: Talwandi saboo, Distt. Bathinda, PIN-151301 , Punjab
20	M/s Chennai Petroleum Corporation Ltd, Manali Maanali village, Madhavaram Taluk, Tiiruvallur District, Tiiruvallur -600068, Tamil Nadu
21	M/s Chennai Petroleum Corporation Ltd, Cauvery Basin Refinery, Panangudi, Nagapattinam District-611002, Tamil Nadu
22	M/s Indian Oil Corporation Limited, , P.O. Mathura Refineries, Mathura-281005, Uttar Pradesh
23	M/s Indian Oil Corporation Limited- P.O. Haldia Refinery, Dist, Medinipore (E). Pin 721606 , West Bengal



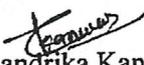
**INSPECTION OF INDUSTRIES WITH REGARD TO GENERATION  
AND MANAGEMENT OF HAZARDOUS WASTES**

S. No.	Particulars	Status/details												
1.	Name & address of the industry	M/s Refracast Metallurgical (P.) Ltd. (Unit-I & Unit-II) 22 Industrial Area Bhanpuri, PO: Birgaon, Raipur, Chhattisgarh												
2.	Date of Visit	17.12.2020												
3.	Contact Person Name, Designation, Contact No. & E-mail	<table border="1"> <tr> <td>Shri S. Kunal Jain, Director M: 9893594094 kunal@refmet.org</td> <td>Shri Arnab Reddy, MD M: 9893653322 arnab@refmet.org</td> </tr> </table>	Shri S. Kunal Jain, Director M: 9893594094 kunal@refmet.org	Shri Arnab Reddy, MD M: 9893653322 arnab@refmet.org										
Shri S. Kunal Jain, Director M: 9893594094 kunal@refmet.org	Shri Arnab Reddy, MD M: 9893653322 arnab@refmet.org													
4.	Name and Designation of the Officials visiting the Unit	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Name of Official</th> <th>Designation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shri Anil C. Ranveer</td> <td>Additional Director, CPCB</td> </tr> <tr> <td>2</td> <td>Ms. Chandrika Kanwan,</td> <td>Scientist, CECB, Raipur</td> </tr> <tr> <td>3</td> <td>Shri Sanjay Singh</td> <td>Lab Assistant, CECB, Raipur</td> </tr> </tbody> </table>	S. No.	Name of Official	Designation	1	Shri Anil C. Ranveer	Additional Director, CPCB	2	Ms. Chandrika Kanwan,	Scientist, CECB, Raipur	3	Shri Sanjay Singh	Lab Assistant, CECB, Raipur
S. No.	Name of Official	Designation												
1	Shri Anil C. Ranveer	Additional Director, CPCB												
2	Ms. Chandrika Kanwan,	Scientist, CECB, Raipur												
3	Shri Sanjay Singh	Lab Assistant, CECB, Raipur												
5.	Process description in brief for each Product. Also attach Process Flow Diagram indicating raw materials and sources of hazardous waste generation along with mass balance	<p align="center"><b>Manufacturing Process of Ferro Alloys and Synthetic Slag from Spent Catalyst</b></p> <pre> graph TD     A[SPENT CATALYST] --&gt; B[If required (Roasting/Drying)]     B --&gt; C[MIXING with Lime &amp; Dolomite (Magnesia &amp; Calcium Oxide)]     C --&gt; D{IF REQUIRED}     D -- NO --&gt; E[DIRECT FURNACE MELTING]     D -- YES --&gt; F[BRIQUETTING]     F --&gt; G[BAKING]     G --&gt; E     E --&gt; H[FINISHED GOODS - Ferro Alloys]     E --&gt; I[FINISHED GOODS - Synthetic Slag]     H --&gt; J[NO RESIDUE / WASTE LEFT OUT. SUPPORT AND SUBSTRACT MATERIALS ARE CONVERED INTO SYNTHETIC SLAG USED IN STEEL INDUSTRIES.]     I --&gt; J   </pre>												
6.	Year of commissioning	1996												

7.	Production (in MT or KL/day) of each product	<b>S. No.</b>	<b>Product (As per consent granted to unit by CECB)</b>	<b>Quantity (MTA)</b>	
		1.	Ferro Alloys (Ni)	390	
		2.	Ferro Alloys (Ni Mo)	1750	
		3.	Ferro Alloys (Mo)	1750	
		4.	Ferro Alloys (Mo Cobalt)	1750	
		5.	Ferro Alloys (Cobalt)	1750	
		6.	Ferro Alloys (Cu Ni)	1750	
		7.	Ferro Alloys (Niobium)	1750	
		8.	Ferro Alloys (Tantalum)	1750	
		9.	Many More	1750	
		10.	Refractory Monolithies	50	
		11.	Metal Oxide (Ferro Alloys)	600	
		12.	Non Ferrous Clinkers (Ferro Alloys)	150	
		13.	Calcium Aluminium Clinkers (Ferro Alloys)	250	
		14.	Synthetic Slag/Catalyst	3750	
8.	Details of Consent under the Water Act, 1974 & Air Act, 1981	Water Consent no.: 7794/RO/TS/CECB/2018, dated 22.03.2018 Date of issue: 01.04.2018 Validity: 31.03.2023 Air Consent no.: 7795/RO/TS/CECB/2018, dated 22.03.2018 Date of issue: 01.04.2018 Validity: 31.03.2023			
9.	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules 2016)	Authorization no.: 754/HSMD/HO/CECB/2020, dated 18.05.2020 Date of issue: 04.10.2019 Validity: 03.10.2024			
		Sl. No.	Hazardous Waste	Category No.	Quantity/Year
		1.	Spent catalyst containing Copper, Nickel, Cobalt and Vanadium compounds	Schedule IV/10	3000 MT
10.	Name and Categories of HW generated and their respective quantity	The details of quantity of spent catalyst procured and utilized, as verified by the inspecting team during the inspection of Unit-II are as below:			
		<i>Year</i>	<i>Quantity (MT)</i>		<i>Procured from</i>
			<i>Procured</i>	<i>Utilized</i>	
		2016-17	1299.38	1299.38	---
		2018-19	2012.29	2012.29	Spent Catalyst generated from Oil Refineries & fertilizer industries of U.P., H.P., Gujarat, Rajasthan and West Bengal
		2019-20	419.31	---	
		Annual Return (Form – 4) verified for above procurement and utilization of spent catalyst.			

11.	Details of HW storage, Quantity of HW Stored and period of storage	<p>1. Storage facility details and capacity:</p> <p>(i) Lined /Unlined : Unlined</p> <p>(ii) Open/Covered and safe from rain water intrusion : Open</p> <p>(iii) Hazardous waste (raw material) storage: Plastic bags on open ground</p>								
12.	Compliance w.r.t. labeling, manifest system, records, annual returns, etc.	<p>Please make observations on the below:</p> <ol style="list-style-type: none"> <li>1. Adequate packaging of HW: No</li> <li>2. Labeling of HW containers in Form 18: No</li> <li>3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Submitted (Form-10).</li> <li>4. Transportation of HW only by authorized sender or receiver: Authorization of transporter not provided during inspection.</li> <li>5. NOC from the concerned SPCB/PCC if HW are sent for disposal to other State/UT. Intimation to SPCB time to time.</li> <li>6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport in case HW is sent for recycling or utilisation including co-processing: Intimation to SPCB time to time.</li> <li>7. Prior intimation to SPCBs/PCCs of the States/UTs of transit in case of interstate transportation. Complied.</li> <li>8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988: Authorization of transporter not provided during inspection.</li> <li>9. Daily records maintenance in Form 3: Not as per format.</li> <li>10. Timely submission of annual returns in Form 4 to the SPCB/PCC: Complied.</li> </ol>								
13.	Safety facilities provided at storage facility		<table border="1"> <thead> <tr> <th data-bbox="724 1301 836 1357">S. No.</th> <th data-bbox="836 1301 1262 1357">Safety Facility</th> </tr> </thead> <tbody> <tr> <td data-bbox="724 1357 836 1413">1.</td> <td data-bbox="836 1357 1262 1413">Unlined storage ground area</td> </tr> <tr> <td data-bbox="724 1413 836 1469">2.</td> <td data-bbox="836 1413 1262 1469">Shed not provided</td> </tr> </tbody> </table>	S. No.	Safety Facility	1.	Unlined storage ground area	2.	Shed not provided	
S. No.	Safety Facility									
1.	Unlined storage ground area									
2.	Shed not provided									
14.	Observations	<ol style="list-style-type: none"> <li>1. The unit has installed Environmental Data display board but the information regarding hazardous waste generation was not updated.</li> <li>2. The Unit-I was observed non-operational and under maintenance. Unit-II is operational at the time of inspection.</li> <li>3. The unit has submitted Form-3 which is maintained on procurement basis of spent catalyst.</li> <li>4. The process of metal recycling through spent catalyst involves roasting and pyro-metallurgical process and finished product in alloy form.</li> <li>5. The unit has passbook issued by CECB for procurement and recycling of hazardous waste.</li> <li>6. The unit does not have a dedicated hazardous waste storage area</li> </ol>								

		for hazardous waste storage and for finished product. 7. Photographs of visit is attached as <b>Annexure I</b> .
15.	Recommendations	<ol style="list-style-type: none"> <li>1. The unit shall update Environmental Data Display Board regularly.</li> <li>2. The unit shall also maintain record of generation of hazardous wastes as per Form – 3 of HOWM Rules, 2016.</li> <li>3. The unit shall ensure procurement of hazardous waste from authorized generators for specific category of hazardous waste.</li> <li>4. The unit shall ensure authorization for transportation used for hazardous waste as per HOWM Rules, 2016.</li> <li>5. The unit shall ensure to procure and recycle only such hazardous wastes for which they are authorized.</li> </ol>

  
 Ms. Chandrika Kanwan,  
 Scientist, CECB,  
 Raipur

  
 Anil C. Ranveer,  
 Additional Director, CPCB,  
 New Delhi

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Photographs taken during inspection



Fig. 1: Environmental Data Display Board



Fig. 2: Entry Gate of the Unit

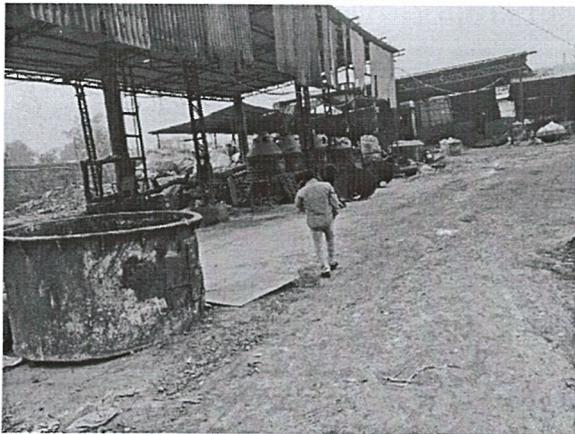


Fig. 3: Storage area



Fig. 4: Waste stored in Drums and Bags



**INSPECTION OF INDUSTRIES WITH REGARD TO GENERATION  
AND MANAGEMENT OF HAZARDOUS WASTES**

S. No.	Particulars	Status/details		
1.	Name & address of the industry	M/s Refmet Technologies (P.) Ltd Village- Pacheda, Arang, District Raipur, Chhattisgarh		
2.	Date of Visit	17.12.2020		
3.	Contact Person Name, Designation, Contact No. & E-mail	Shri S. Kunal Jain, Director M: 9893594094 kunal@refmet.org	Shri Arnab Reddy, MD M: 9893653322 arnab@refmet.org	
4.	Name and Designation of the Officials visiting the Unit	<b>S. No.</b>	<b>Name of Official</b>	<b>Designation</b>
		1	Shri Anil C. Ranveer	Additional Director, CPCB
		2	Ms. Chandrika Kanwan	Scientist, CECB, Raipur
		3	Shri Sanjay Singh	Lab Assistant, CECB, Raipur
5.	Process description in brief for each Product. Also attach Process Flow Diagram	Not provided.		
6.	Year of commissioning	1996		
7.	Production (in MT or KL/day) of each product	<b>S. No.</b>	<b>Product (As per consent granted to unit by CECB)</b>	<b>Quantity (MTA)</b>
		1.	Refractory Mass	200
		2.	Processed Minerals Calcined Boxide, Magnasita, Alluminiums	500
		3.	Ferro Alloys	240
		4.	Non- Ferro Alloys Compounds/Chemicals	250
		5.	Metal Oxide	150
		6.	Non- Ferrous Metals	150
		7.	Waste Products Alluminiums Clinkers	4000
		8.	Precast Shapes of Refractory	200
8.	Details of Consent under the Water Act, 1974 & Air Act, 1981	Water Consent no.: 7895/RO/TS/CECB/2018, dated 23.03.2018 Date of issue: 01.04.2018 Validity: 31.03.2023		

		Air Consent no.: 7896/RO/TS/CECB/2018, dated 23.03.2018 Date of issue: 01.04.2018 Validity: 31.03.2023																				
9.	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules 2016)	Authorization no.: 1496/HSMD/HO/CECB/2020, dated 08.06.2020 Date of issue: 31.08.2019 Validity: 30.08.2024 <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Hazardous Waste</th> <th>Category No.</th> <th>Quantity (MT)/Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Spent catalyst containing copper, Nickel, Zinc</td> <td>Schedule IV, S.no 10</td> <td>1000,3000,500 respectively</td> </tr> <tr> <td>2.</td> <td>Cobalt, Molybdenum, Tungstun, Silver, Vanadium compound</td> <td>Schedule III, Part-B, B-1120</td> <td>2500</td> </tr> <tr> <td>3.</td> <td>Copper oxide Mill scale, Copper reverts, cakes and residues, slag from copper processing</td> <td>Schedule IV, S.no 3,4,6</td> <td>1000</td> </tr> <tr> <td>4.</td> <td>Brass, Copper, Zinc Dross-Ohot dip galvanizers slab.</td> <td>Schedule IV, S.no 1,2,11,12</td> <td>1000</td> </tr> </tbody> </table>	Sl. No.	Hazardous Waste	Category No.	Quantity (MT)/Year	1.	Spent catalyst containing copper, Nickel, Zinc	Schedule IV, S.no 10	1000,3000,500 respectively	2.	Cobalt, Molybdenum, Tungstun, Silver, Vanadium compound	Schedule III, Part-B, B-1120	2500	3.	Copper oxide Mill scale, Copper reverts, cakes and residues, slag from copper processing	Schedule IV, S.no 3,4,6	1000	4.	Brass, Copper, Zinc Dross-Ohot dip galvanizers slab.	Schedule IV, S.no 1,2,11,12	1000
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4.	Brass, Copper, Zinc Dross-Ohot dip galvanizers slab.	Schedule IV, S.no 1,2,11,12	1000																			
10.	Name and Categories of HW generated and their respective quantity	Annual Return (Form – 4) provided for year 2019-20 showing spent catalyst procurement and disposal as NIL.																				
11.	Details of HW storage, Quantity of HW Stored and period of storage	1. Storage facility details and capacity: (i) Lined /Unlined : Unlined (ii) Open/Covered and safe from rain water intrusion : Open (iii) Hazardous waste (raw material) storage: Drums																				
12.	Compliance w.r.t. labeling, manifest system, records, annual returns, etc.	Please make observations on the below: 1. Adequate packaging of HW: No 2. Labeling of HW containers in Form 18: No 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Intimation to CECB time to time. 4. Transportation of HW only by authorized sender or receiver: Authorization of transporter not provided during inspection. 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to other State/UT. Intimation to CECB time to time. 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport in case HW is sent for recycling or utilisation including co-processing: Intimation to CECB time to																				

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S.No.	Safety Facility							
1.	Unlined storage ground area							
2.	Shed not provided							
14.	Observations	<p>1. The unit was not in operation at the time of inspection.</p> <p>2. The unit had installed Environmental Data at entry gate but the information regarding hazardous waste generation was not updated.</p> <p>3. The unit has not submitted Form-3 and Form-10 as the unit representative inform that they are not procuring spent catalyst since 2014.</p> <p>4. However, the unit is recycling vanadium concentrate for recovery of vanadium penta-oxide without authorization.</p> <p>5. Form 4 submitted for 2019-20 verified that no procurement of spent catalyst for that year.</p> <p>6. The process of metal recycling is pyro-metallurgical.</p> <p>7. The unit does not have a dedicated hazardous waste storage area for hazardous waste storage.</p> <p>8. Photographs of visit is attached as <b>Annexure I</b>.</p>						
15.	Recommendations	<p>1. The unit shall operate with valid authorization.</p> <p>2. The unit shall update Environmental Data Display Board regularly.</p> <p>3. The unit shall also maintain record of generation of hazardous wastes as per Form – 3 of HOWM Rules, 2016.</p> <p>4. The unit shall ensure to procure hazardous waste from the authorized generators for specific category of hazardous waste.</p>						

  
 Ms. Chandrika Kanwar,  
 Scientist, CEGB,  
 Raipur

  
 Anil C. Ranveer,  
 Additional Director, CPCB,  
 New Delhi

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Photographs taken during inspection



Fig. 1: Hazardous Waste recycling premises



Fig. 2: Process Vanadium concentrate storage



Fig. 3: HCL storage tank



Fig. 4: Process Vanadium concentrate storage



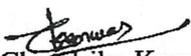
**INSPECTION OF INDUSTRIES WITH REGARD TO GENERATION  
AND MANAGEMENT OF HAZARDOUS WASTES**

S. No.	Particulars	Status/details		
1.	Name & address of the industry	M/s Arth Metallurgicals Pvt Ltd. Plot No 95/2, Khasra No. 226/1, Village- Lalpur, District Raipur, Chhattisgarh		
2.	Date of Visit	18.12.2020		
3.	Contact Person Name, Designation, Contact No. & E-mail	Shri Yogendra Narang, Director M: 8120677797 yogendra.narang@gmail.com		
4.	Name and Designation of the Officials visiting the Unit	<b>S. No.</b>	<b>Name of Official</b>	<b>Designation</b>
		1	Shri Anil C. Ranveer	Additional Director, CPCB
		2	Ms. Chandrika Kanwan	Scientist, CECB, Raipur
		3	Shri Sanjay Singh	Lab Assistant, CECB, Raipur
5.	Process description in brief for each Product. Also attach Process Flow Diagram indicating raw materials and sources of hazardous waste generation along with mass balance	Attached as Annexure-I		
6.	Year of commissioning	29.03.2012		
7.	Production (in MT or KL/day) of each product	<b>S. No.</b>	<b>Product (As per consent granted to unit by CECB)</b>	<b>Quantity (MTA)</b>
		1.	Vanadium, Molybdenum, Nickel Cobalt, Zinc, Oxide, Lead Metal, Casting Powder	3000
8.	Details of Consent under the Water Act, 1974 & Air Act, 1981	Water Consent no.: 6434/TS/CECB/2019, dated 23.10.2019 Date of issue: 23.10.2019 Validity: 31.08.2022		

		Air Consent no.: 6434/TS/CECB/2019, dated 23.10.2019 Date of issue: 23.10.2019 Validity: 31.08.2022																																								
9.	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules 2016)	Authorization no.: 4745/HSMD/HO/CECB/2017, dated 01.12.2017 Date of issue: 31.08.2017 Validity: 30.08.2022 <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Hazardous Waste</th> <th>Category No.</th> <th>Quantity /Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Vanadium sludge from alumina</td> <td>11.7</td> <td>5000 T</td> </tr> <tr> <td>2.</td> <td>Spent catalyst containing Molybdenum</td> <td>Schedule IV/10</td> <td>1500 T</td> </tr> <tr> <td>3.</td> <td>Spent catalyst containing Nickel</td> <td>Schedule IV/10</td> <td>1500</td> </tr> <tr> <td>4.</td> <td>Spent catalyst containing Cobalt</td> <td>Schedule IV/10</td> <td>900 T</td> </tr> <tr> <td>5.</td> <td>Used lead acid battery</td> <td>Schedule IV/17</td> <td>100 T</td> </tr> <tr> <td>6.</td> <td>Used/spent oil</td> <td>5.1</td> <td>120 Liter</td> </tr> <tr> <td>7.</td> <td>Zinc fines or dust or ash or skimmings in dispersible form</td> <td>6.2</td> <td>600 T</td> </tr> <tr> <td>8.</td> <td>Chemical sludge from waste water treatment</td> <td>35.3</td> <td>80 MT</td> </tr> <tr> <td>9.</td> <td>Filter press residue/Slag/MEE residue</td> <td>---</td> <td>2050 MT</td> </tr> </tbody> </table>	Sl. No.	Hazardous Waste	Category No.	Quantity /Year	1.	Vanadium sludge from alumina	11.7	5000 T	2.	Spent catalyst containing Molybdenum	Schedule IV/10	1500 T	3.	Spent catalyst containing Nickel	Schedule IV/10	1500	4.	Spent catalyst containing Cobalt	Schedule IV/10	900 T	5.	Used lead acid battery	Schedule IV/17	100 T	6.	Used/spent oil	5.1	120 Liter	7.	Zinc fines or dust or ash or skimmings in dispersible form	6.2	600 T	8.	Chemical sludge from waste water treatment	35.3	80 MT	9.	Filter press residue/Slag/MEE residue	---	2050 MT
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10.	Name and Categories of HW generated and their respective quantity	The details of quantity of spent catalyst procured and utilized, as verified the inspecting team during the inspection are as below: <table border="1"> <thead> <tr> <th>Year</th> <th>Procured Quantity (MT)</th> <th>Utilized Quantity (MT)</th> <th>Stock Stored (MT)</th> <th>Procured from</th> </tr> </thead> <tbody> <tr> <td>2018-19</td> <td>425.79 + (171.65 previous stock)</td> <td>195.88</td> <td>140</td> <td>West Bengal, Assam, Karnataka, Maharashtra</td> </tr> <tr> <td>2019-20</td> <td>469 + (140 previous stock)</td> <td>448.65</td> <td>160</td> <td>Gujarat, Andhra Pradesh, West Bengal, Karnataka</td> </tr> </tbody> </table> Annual Return (Form – 4) verified for above procurement and utilization of spent catalyst.	Year	Procured Quantity (MT)	Utilized Quantity (MT)	Stock Stored (MT)	Procured from	2018-19	425.79 + (171.65 previous stock)	195.88	140	West Bengal, Assam, Karnataka, Maharashtra	2019-20	469 + (140 previous stock)	448.65	160	Gujarat, Andhra Pradesh, West Bengal, Karnataka																									
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11.	Details of HW storage, Quantity of HW Stored and period of storage	1. Storage facility details and capacity: (i) Lined /Unlined : Lined (ii) Open/Covered and safe from rain water intrusion : Covered (iii) Hazardous waste (raw material) storage: Drums								
12.	Compliance w.r.t. labeling, manifest system, records, annual returns, etc.	Please make observations on the below: 1. Adequate packaging of HW: Drums 2. Labeling of HW containers in Form 18: Not as per format 3. Compliance of all Manifest Documents and sending/receiving of the same to concerned when HW are being sent (refer Rule 19 of the HOWM Rules, 2016): Intimation to SPCB time to time. 4. Transportation of HW only by authorized sender or receiver: Authorization of transporter not provided during inspection. 5. NOC from the concerned SPCB/PCC if HW are sent for disposal to other State/UT. Intimation to SPCB time to time. 6. Intimation to both the SPCBs/PCCS before handing over the waste to the transport in case HW is sent for recycling or utilisation including co-processing: Intimation to SPCB time to time. 7. Prior intimation to SPCBs/PCCs of the States/UTs of transit in case of interstate transportation. Complied. 8. Transportation of HW and compliance with Rules under Motor Vehicles Act, 1988: Authorization of transporter not provided during inspection. 9. Daily records maintenance in Form 3: The records has been found maintained on procurement basis in Form – 3 of HOWM Rules, 2016. 10. Timely submission of annual returns in Form 4 to the SPCB/PCC: Complied								
13.	Safety facilities provided at storage facility		<table border="1"> <thead> <tr> <th data-bbox="718 1500 817 1556">S. No.</th> <th data-bbox="825 1500 1241 1556">Safety Facility</th> </tr> </thead> <tbody> <tr> <td data-bbox="718 1556 817 1608">1.</td> <td data-bbox="825 1556 1241 1608">Lined storage ground area</td> </tr> <tr> <td data-bbox="718 1608 817 1653">2.</td> <td data-bbox="825 1608 1241 1653">Shed provided</td> </tr> </tbody> </table>	S. No.	Safety Facility	1.	Lined storage ground area	2.	Shed provided	
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14.	Observations	1. The unit has installed Environmental Data display board but the information regarding hazardous waste generation was not updated. 2. The unit was in operation at the time of inspection. 3. The unit has submitted Form-3 which is maintained on procurement basis of spent catalyst. Record was maintained as per Form-3 of HOWM Rules, 2016. 4. The spent catalyst (raw material) was found stored in MS Drums								

		<p>during inspection. The storage area was not properly marked.</p> <ol style="list-style-type: none"> <li>5. The process of metal reclamation through spent catalyst involves Hydro-metallurgical process.</li> <li>6. It was observed that there is gap of around 260 MT spent catalyst being reflected in annual return submitted by unit for year 2018-19.</li> <li>7. The unit has maintained passbook issued by CECB for procurement and recycling of hazardous waste.</li> <li>8. Photographs of visit is attached as <b>Annexure II</b>.</li> </ol>
15.	Recommendations	<ol style="list-style-type: none"> <li>1. The unit shall update Environmental Data Display Board regularly.</li> <li>2. The unit shall ensure proper packaging and labelling of hazardous and other waste as per Rule 17 of HOWM Rules, 2016.</li> <li>3. The unit shall file annual return clearly mentioning previous stock, waste procured, waste utilized and product manufactured.</li> <li>4. The unit shall ensure to procure hazardous waste from the authorized generators for specific category of hazardous.</li> <li>5. The unit shall ensure to procure only such hazardous wastes for which they are authorized for recycling/utilization.</li> </ol>

  
 Ms. Chandrika Kanwar,  
 Scientist, CECB,  
 Raipur

  
 Anil C. Ranveer,  
 Additional Director, CPCB,  
 New Delhi

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## Photographs taken during inspection

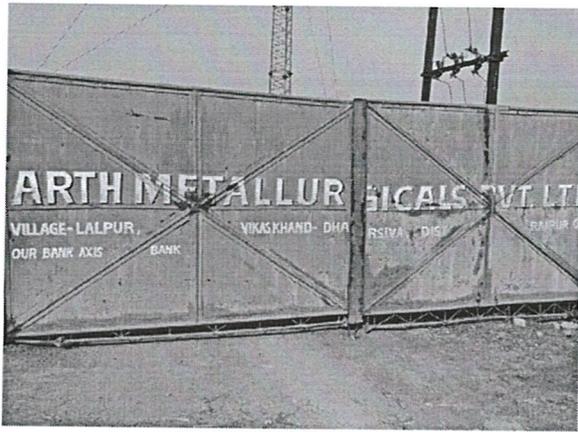


Fig. 1: Entry Gate of Unit

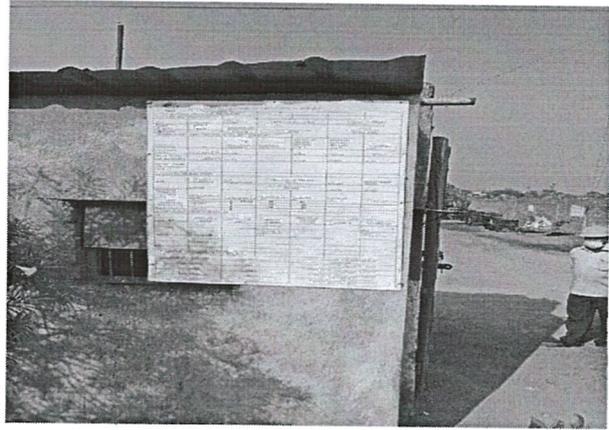


Fig. 2: Environmental Data Display Board

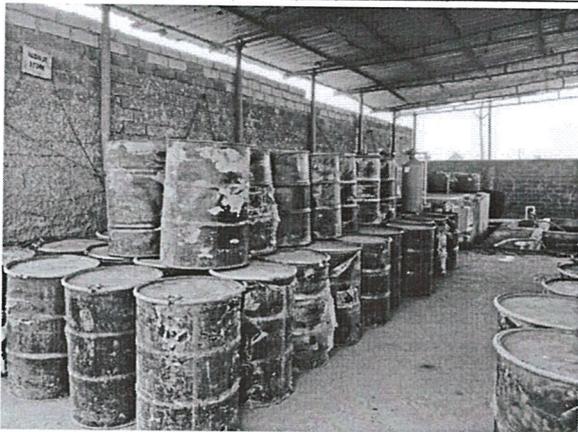


Fig. 3: Spent Catalyst stored in Drums

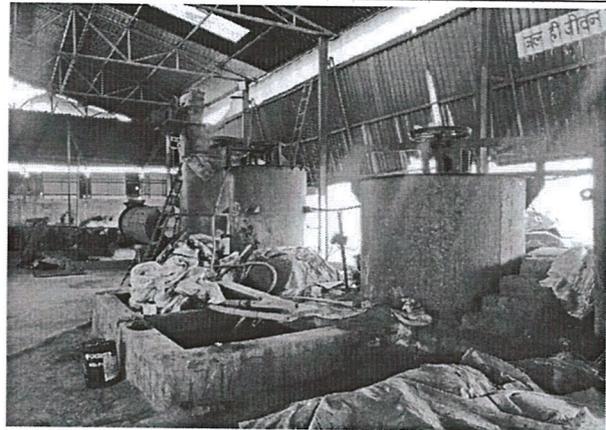


Fig. 4: Leaching section

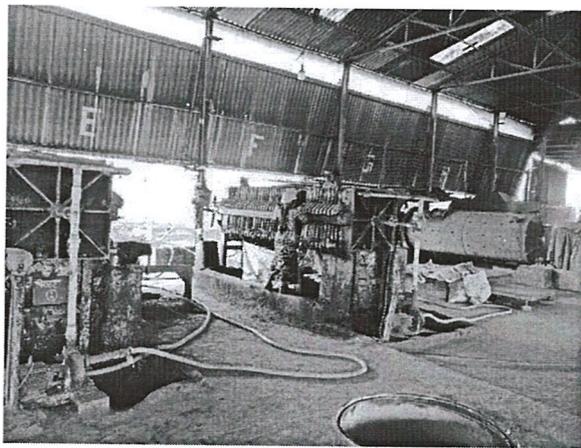


Fig. 5: Filter Press



Fig. 6: Discarded Drums

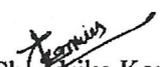


**INSPECTION OF INDUSTRIES WITH REGARD TO GENERATION  
AND MANAGEMENT OF HAZARDOUS WASTES**

S. No.	Particulars	Status/details																		
1.	Name & address of the industry	M/s Ashtadhatu Ferro Metals Pvt Ltd Village Tarasiw, Gaitra Road, Tehsil-Tilda, District Raipur, Chhattisgarh																		
2.	Date of Visit	18.12.2020																		
3.	Contact Person Name, Designation, Contact No. & E-mail	Shri Ved Saurabh Narang, Director M: 7879899998 narang.ved@gmail.com																		
4.	Name and Designation of the Officials visiting the Unit	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Name of Official</th> <th>Designation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shri Anil C. Ranveer</td> <td>Additional Director, CPCB</td> </tr> <tr> <td>2</td> <td>Ms. Chandrika Kanwan</td> <td>Scientist, CECB, Raipur</td> </tr> <tr> <td>3</td> <td>Shri Sanjay Singh</td> <td>Lab Assistant, CECB, Raipur</td> </tr> </tbody> </table>	S. No.	Name of Official	Designation	1	Shri Anil C. Ranveer	Additional Director, CPCB	2	Ms. Chandrika Kanwan	Scientist, CECB, Raipur	3	Shri Sanjay Singh	Lab Assistant, CECB, Raipur						
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5.	Process description in brief for each Product. Also attach Process Flow Diagram indicating raw materials and sources of hazardous waste generation along with mass balance	<p align="center"><i>Process Flow Diagram</i></p> <pre> graph TD     A[Spent Catalyst Nickel] --&gt; B[Melting in Arc Furnace at 1400-1600°C]     B --&gt; C[Ingot Casting]     C --&gt; D[Cooling]     D --&gt; E[Product i.e. Ferro Nickel]     B --&gt; F[Air Pollution Control Device (Canopy Hood, Cyclone, Bag filter followed by ID Fan)]     F --&gt; G[Stack]     F --&gt; H[APCD dust to common TSDF]     I[Slag re-used] --&gt; A   </pre>																		
6.	Year of commissioning	10.08.2017																		
7.	Production (in MT or KL/day) of each product	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Product (As per consent granted to unit by CECB)</th> <th>Quantity (MTA)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Ferro Vanadium</td> <td>850</td> </tr> <tr> <td>2.</td> <td>Synthetic Slag</td> <td>15,000</td> </tr> <tr> <td>3.</td> <td>Ferro Cobalt</td> <td>108</td> </tr> <tr> <td>4.</td> <td>Ferro Nickel</td> <td>182</td> </tr> <tr> <td>5.</td> <td>Aluminum Ingot</td> <td>3000</td> </tr> </tbody> </table>	S. No.	Product (As per consent granted to unit by CECB)	Quantity (MTA)	1.	Ferro Vanadium	850	2.	Synthetic Slag	15,000	3.	Ferro Cobalt	108	4.	Ferro Nickel	182	5.	Aluminum Ingot	3000
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8.	Details of Consent under	Water Consent no.: 2050/TS/CECB/2019, dated 24.06.2019																		

	the Water Act, 1974 & Air Act, 1981	Date of issue: 24.06.2019 Validity: 31.03.2022 Air Consent no.: 2050/TS/CECB/2019, dated 24.06.2019 Date of issue: 24.06.2019 Validity: 21.03.2022																
9.	Status of Authorization under the Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008 (HWM Rules, 2008) / Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 (HOWM Rules 2016)	Authorization no.: 6310/HSMD/HO/CECB/2019, dated 17.10.2019 Date of issue: 17.10.2019 Validity: 09.12.2023 <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Hazardous Waste</th> <th>Category No.</th> <th>Quantity (MT) /Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Spent Catalyst containing Cobalt &amp; Nickel</td> <td>Schedule IV/10</td> <td>1080 &amp; 1050</td> </tr> <tr> <td>2.</td> <td>Drosses and waste from treatment of salts sludge</td> <td>Schedule-I, 11.5</td> <td>20,000</td> </tr> <tr> <td>3.</td> <td>Spent Aluminum Dross residue/rejects</td> <td>Schedule-I, 11.5</td> <td>17,000</td> </tr> </tbody> </table>	Sl. No.	Hazardous Waste	Category No.	Quantity (MT) /Year	1.	Spent Catalyst containing Cobalt & Nickel	Schedule IV/10	1080 & 1050	2.	Drosses and waste from treatment of salts sludge	Schedule-I, 11.5	20,000	3.	Spent Aluminum Dross residue/rejects	Schedule-I, 11.5	17,000
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Photographs taken during inspection

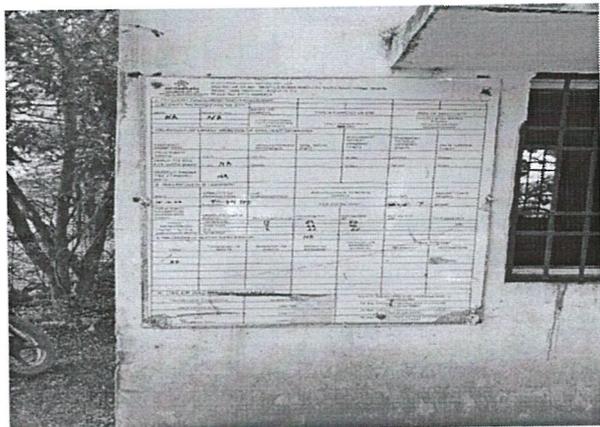


Fig. 1: Environmental Data Display Board

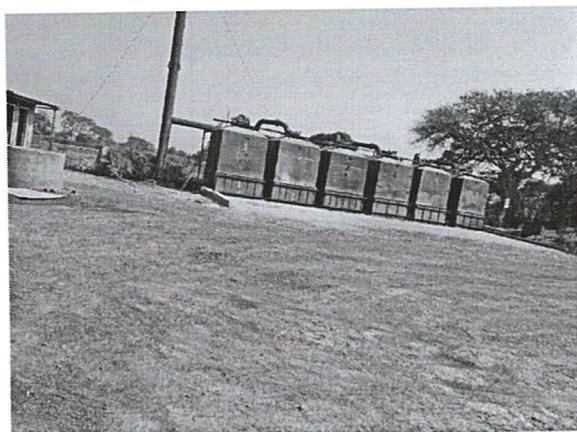


Fig. 2: Operational unit

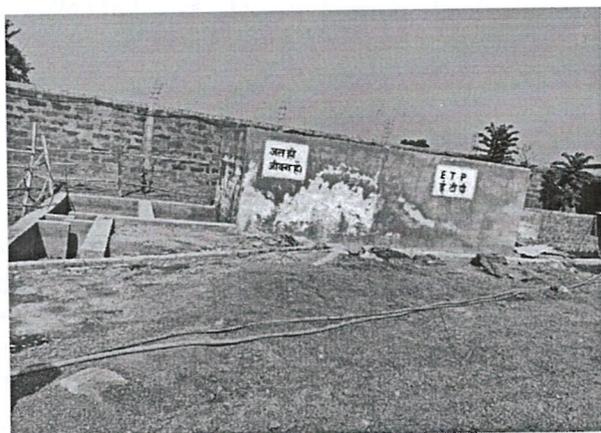


Fig. 3: ETP

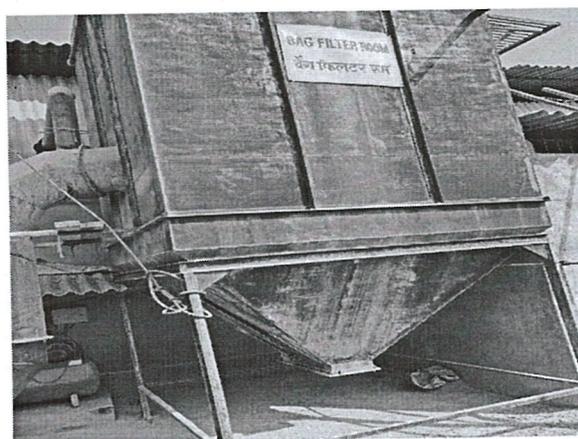


Fig. 4: Spark Arrestor attached to APCD