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o/c

# SHREE CEMENT LTD.

*An ISO 9001, 14001, 45001 & 50001 Certified Company*

*Regd. Office:*
BANGUR NAGAR, POST BOX NO.33, BEAWAR 305901, RAJASTHAN, INDIA

SCL/BWR/ENV-9 /2021-22/ 7119

Date: 27/09/2021

To,

**File No. C-105**

**The Member Secretary,**
**Rajasthan Pollution Control Board,**
4, Institutional Area, Jhalana Doongri Road,
JAIPUR-302004 (Rajasthan).

**Sub:** - Submission of Environmental Statement Report of Cement Unit-II of M/s Shree Cement Ltd, Village – Andheri Deori, Tehsil Masuda, District Ajmer (Raj) for the FY-2020-2021 (April-2020 to March-2021) under environment protection Act, 1986.

**Ref:** - CTO No. F (CPM)/ Ajmer (Masuda)/1(1)/2010-2011/6975-6977, Dated03/11/2017.

Dear Sir,

Kindly refer to above subject matter and referred letter. In this regard, we are submitting herewith the Environmental Statement Report of Cement Unit II of M/s Shree Cement Ltd, Village – Andheri Deori, Tehsil Masuda, District Ajmer (Raj) for the period of April 2020- March 2021.

This is for your kind information please.

Thanking you,
Yours faithfully,

For Shree Cement Ltd;

(Dr. Anil Kumar Trivedi)
Sr. G.M. Environment

**Copy to:-**

1. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Jaipur , A-209&218, Aranya Bhawan, Mahatma Gandhi Road, Jhalana Institutional Area, Jaipur – 304002, Rajasthan.
2. The in charge (Regional office), Rajasthan State Pollution Control Board, SPL-II, 5th phase, RIICO Industrial Area, Kishangarh, Ajmer (Raj).

# ENVIRONMENTAL STATEMENT
## M/s Shree Cement Limited Unit II

## Period from : April, 2020 to : March, 2021

## FORM – V

## PART – A

| | | |
|---|---|---|
| 1. | Name and address of the Owner / Occupier of the Industry operation or process | M/S Shree Cement Ltd.<br>Bangur Nagar,<br>P.O. Box No. 33,<br>Beawar- 305901<br>Distt. Ajmer (Rajasthan) |
| 2. | Industry Category<br>Primary (S.T.C. Code)<br>Secondary (S.T.C. Code) | Red Category |
| 3. | Production Capacity | 5500 TPD Clinker<br>7200 TPD Cement |
| 4. | Year of Establishment | 1997 |
| 5. | Date of the last Environmental Statement submitted | 22/09/2020 |

## PART – B

## WATER AND RAW MATERIAL CONSUMPTION

1. **WATER CONSUMPTION:**

| | | |
|---|---|---|
| Process | : | N.A. (As plant is based on dry Process technology) |
| Cooling and dust Suppression | : | 15803 KL |
| Domestic | : | 224047 KL (Common for Cement Plants, Power Plants, Mines & Synthetic Gypsum plant) |

| Name of Product | Process Water Consumption per Unit of Clinker Output | |
|---|---|---|
| | During Previous Financial Year (2019-20) | During Current Financial Year (2020-21) |
| Clinker | 0.094 KL/MT of Clinker | 0.016 KL/MT of Clinker |
| Cement | 0.098 KL/MT of Cement | 0.012 KL/MT of Cement |

## 2. RAW MATERIAL CONSUMPTION: (CEMENT )

| Name of Raw Material | Name of Product | Consumption of Raw Material Per Unit of Output (Cement) | |
|---|---|---|---|
| | | During Current Financial Year (2019-2020) | During Current Financial Year (2020-2021) |
| 1. Limestone | Cement | 1.66 | 1.06 |
| 2. Laterite /Iron Ore/Mill scale | | 0.0 | 0.0 |
| 3. Slag | | 0.0 | 0.0 |
| 4. Sweetner/ High Grade Limestone/Flyash in raw mill/ sand | | 0.0 | 0.0 |
| 5. Gypsum | | 0.09 | 0.10 |
| 6. Fly Ash | | 0.26 | 0.10 |
| 7. Coal & Pet Coke | | 0.10 | 0.09 |
| 8. Bed Ash/pond ash (in Cement) | | 0.0 | 0.24 |
| 9. Marble Slurry | | 0.08 | 0.07 |
| 10. AFR( Hazardous Waste) | | 0.02 | 0.01 |

## 3. POWER CONSUMPTION (KWH/T OF CEMENT):

| During Previous Financial Year (2019-20) | During Current Financial Year (2020-2021) |
|---|---|
| 71.64 | 65.69 |

## 4. TOTAL CEMENT PRODUCTION (MT):

| Product | During Previous Financial Year (2019-20) | During Current Financial Year (2020-2021) |
|---|---|---|
| Clinker | 675593 | 937671 |
| Cement | 646338 | 1293161 |

## PART – C
## DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

<table>
<tr><th>Pollutants</th><th>Quantity of Pollutants Discharged (Mass/Day)</th><th>Concentration of Pollutants in Discharge (Mass/Value)</th><th>Percentage of variation from prescribed standard with reasons</th></tr>
<tr><td>(a)</td><td>Water</td><td colspan="2">Cement Plant is being operated on dry process technology, hence no liquid effluent is generated from plant.<br>Domestic waste water generated from residential colony, canteen and office toilets is being treated in STP and treated water & sludge generated is used in plantation & horticulture activities. Total quantity of treated domestic waste water during FY 2020-21 was 65885 KL. Residential colony is common for Shree Cement Limited Unit 1 & 2, Mines (SK Mines & Shyamgarh Limestone Mines), Synthetic Gypsum and Power Plants. Analysis report of STP treated water is attached as annexure.</td></tr>
<tr><td>(b)</td><td>Air</td><td colspan="2">
<table>
<tr><th rowspan="2">S. N</th><th rowspan="2">Stack Attached to</th><th colspan="3">Particulate Matter Emission (Annual Data PM in mg/Nm$^3$)</th><th rowspan="2">Prescribed limit by RSPCB (mg/Nm$^3$)</th><th rowspan="2">Tones/Day (Avg)</th></tr>
<tr><th>Min</th><th>Max.</th><th>Avg</th></tr>
<tr><td>1</td><td>Raw Mill & Kiln Stack</td><td>9.1</td><td>20.2</td><td>12.28</td><td>30</td><td>0.091</td></tr>
<tr><td>2</td><td>Coal Mill Stack</td><td>6</td><td>11.7</td><td>7.8</td><td>30</td><td>0.005</td></tr>
<tr><td>3</td><td>Cooler Stack</td><td>10.2</td><td>28.1</td><td>17.3</td><td>30</td><td>0.089</td></tr>
<tr><td>4</td><td>Cement Mill Stack</td><td>7.1</td><td>19.1</td><td>11.5</td><td>30</td><td>0.007</td></tr>
</table>
Please refer Annexure –1</td></tr>
<tr><td>(c)</td><td>Noise & Ambient Air</td><td colspan="2">Please refer Annexure-2</td></tr>
<tr><td>(d)</td><td>STP treated water</td><td colspan="2">Please refer Annexure-3</td></tr>
</table>

## PART – D

(As specified under Hazardous & Other Wastes (Management & Trans boundary Movement Rule, 2016) & Amendment rule, 2019.

| Hazardous Waste | Total Quantity (Ltrs.) | |
|---|---|---|
| | **During Current Financial Year (2019-2020)** | **During Current Financial Year (2020-2021)** |
| a)From Process (Cement manufacturing is based on "Dry Process" No Hazardous waste is generated from the process except used oil which is drained from Machinery / Equipments) | We have Common authorization for Hazardous Waste Management & Handling for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines.<br><br>Total Quantity generated from April-2019 to March-2020 = 1200 Ltrs.<br>Old Stock = 0 Ltrs.<br>Total Used oil = 1200 Ltrs.<br>Sold-out to registered recycler = 0 Ltrs.<br>Quantity Co- processed = 1200 Ltrs.<br>Balance Quantity= 0 Ltrs | We have Common authorization for Hazardous Waste Management & Handling for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines.<br><br>Total Quantity generated from April-2020 to March-2021 = 12600 Ltrs.<br>Old Stock = 0 Ltrs.<br>Total Used oil = 12600 Ltrs.<br>Sold-out to registered recycler = 12600 Ltrs.<br>Quantity Co- processed = 0 Ltrs.<br>Balance Quantity= 0 Ltrs |
| (b) From Pollution Control Facilities | N.A. | N.A. |

## PART – E

## SOLID WASTE

| | | Total Quantity | |
|---|---|---|---|
| | | **During Previous Financial Year (2019-2020)** | **During Current Financial Year (2020-2021)** |
| (a) | From Process | Nil | Nil |
| (b) | From Pollution Control Facility | Dust collected in the ESPs, Bag Houses and Bag Filters are recycled to the system. | |
| (c) | 1. Quantity rejected or re- utilized within | 100% reutilized within the unit. | 100% reutilized within the unit. |
| | 2. Sold | Nil | Nil |
| | 3. Disposed | Nil | Nil |

## PART – F

**Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes:**
**Enclosed as Annexure-4**

**Battery Wastes:**

As specified under Batteries (Management and Handling) Amendment Rules, 2010, we have purchased following new batteries of different categories is common for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines-

| | | | |
|---|---|---|---|
| | Number of used batteries of categories mentioned in Sl. No 3 and Tonnage of scrap sent manufacturer/dealer/importer/registered recycler/or any other agency to whom the used batteries scrap was sent | During 1st Apr. 2020 to 31st Mar. 2021 | |
| | Common for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines | | |
| 2. | Category: | (i) No. of Batteries | (ii) Approximate Weight (In Metric Tonnes) |
| | (i) Automotive | | |
| | a) Four wheeler | 85 | 3.570 |
| | b) Two wheeler | 15 | 0.030 |
| | (ii) Industrial | Nil | Nil |
| | a) UPS | 133 | 2.660 |
| | b) Motive Power | Nil | Nil |
| | c) Stand –by | Nil | Nil |
| | (iii) Others | Nil | Nil |
| | Total | **233 Nos.** | **6.26 MT** |

Used battery scrap was sent to CPCB authorized recycler

**Hazardous Wastes**

Cement manufacturing is based on "Dry Process" technology. No Hazardous waste is generated from the process except used oil which is drained from Machineries / Equipment. The used oil 12600 Liter & Lead acid batteries 233 nos. 6.26 MT are sold to CPCB authorized recyclers.

**Bio-Medical Wastes:**

Bio-medical waste generated is common for Cement Plant (Unit 1 & 2), D.G. Sets, Power Plants, Synthetic Gypsum Plant and Mines during previous and current financial year under the Bio-Medical Waste (Management & Handling) Rules 2016 & amended on 2019, are as follows:

| Bio-Medical Waste Quantity (Kg) as per Color Coding | | | | | | | |
|---|---|---|---|---|---|---|---|
| During Previous Financial Year (April 2019 to March 2020) | | | | During Current Financial Year (April 2020 to March 2021) | | | |
| Yellow | Red | Blue | White | Yellow | Red | Blue | White |
| 282 | 219 | 247 | 0.0 | 234 | 205 | 211 | 0.0 |

Above mentioned waste has been sent to Sales Promoter, CBWTF Bio Medical Treatment Facility, Jaipur Bye Pass Road, Ajmer (Raj.) for disposal.

**E- Wastes:**

| | Total Quantity | |
|---|---|---|
| | During **Previous** Financial Year (2019-2020) | During Current Financial Year (2020-2021) |
| From Process | Nil | Nil |
| From Pollution Control Facility | Nil | Nil |
| Others | 0.0 | 11.86 |

**Solid Wastes:** - N.A.

## PART – G

## IMPACT OF THE POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION

M/s Shree Cement Ltd. is being operated on dry process technology, which is cost effective and environmentally clean technology. The advantage of dry process is also in fuel economy.

The stack emissions from the plant are controlled by pollution control equipment's like ESPs & Bag Houses. Bag - Filters installed at various material transfer points to clean the process and arrest the fugitive emissions.

Waste Heat Recovery Boiler also plays an important role to control the dust emission from Cooler stack.

The particulate matter (PM) collected in the pollution control equipment is recycled back in process and neutralizing the cost of operation of pollution control equipment and hence no cost impact on the production cost.

To emphasis on conservation of the natural resources & to reduce the disposal problems of the waste, total 40254.67 MT hazardous waste was co-processed and 41941.5 MT hazardous waste was utilized for synthetic gypsum production during April 20- March 21.

Unit has implemented the De- NOx technology for control of NOx emissions. The unique technology does not utilize ammonia and thus directly avoid the use of hazardous chemical and its handling. This also reduces our impact on GHG emissions which would otherwise had caused due to transportation.

## PART – H

## ADDITIONAL MEASURES / INVESTMENTS PROPOSAL FOR ENVIRONMENT PROTECTION INCLUDING ABATEMENT OF POLLUTION

Green belt development and tree plantation is our ongoing process within our plant area and also outside the plant boundary. Every year we are doing new tree plantation to increase the density and bio-diversity of the area. In the FY 20-21, 131 new trees have been planted. Up- to March 2021 total green area is around 82.83 hectare with around 228411 nos. of trees which is ~35 % of the total land of plant and colony area (231.94 Ha.). Environment expenditure incurred in the year of 2020-21 (April -2020 to March-2021) was 325.45 (cost in lac). The expenditure in same heads is proposed for next year.

## PART – I

## ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1. We have full-fledged Environment Department with three separate cells, for monitoring, maintenance of pollution control equipment and Green Belt development.
2. Monitoring of stack emission and ambient air and water quality is being done regularly basis. The on-line continuous data is being transferred to CPCB and RPCB sites.
3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
4. Civil dept. taking care of Housekeeping and water supply department is taking care of operation of STP.
5. To further reduce fugitive emissions, we have a big size truck mounted and 04 nos of small 3D TPS sweeping machines for regular sweeping and cleaning of paved area.
6. All the material transfer belts are covered and transfer points are equipped with pollution control equipment.

7. Truck parking area and vehicle movement areas are paved and concreted to avoid any fugitive emissions.
8. Horticulture Department in coordination with environment department is taking care of tree plantation and green belt development. Every year during monsoon season, we are doing new tree plantation.
9. Covered shed and Silos have been constructed for raw material storage.
10. Conversion of ESP to Bag House has being done in Raw Mill and Kiln stack.
11. Installation of De- NOx system has helped to further reduce the NOx emissions.
12. Domestic waste water generated from Colony, guesthouse, office toilets and canteen is being treated at Sewage Treatment Plant (STP) and treated water is being utilized in plantation & gardening.
13. We are committed and maintaining Zero Liquid Discharge (ZLD) from our premises.
14. We create environment awareness for all our stakeholders through meetings, training programs, world environment day celebrations etc.

We are enclosing herewith following documents:-

Annexure-1: Stack Emission monitoring report.

Annexure-2: Ambient Air Quality (PM10, PM2.5, $SO_2$ and $NO_2$), Ambient Noise Level monitoring report.

Annexure-3: Treated Domestic Wastewater analysis report.

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**Annexure: 1**

## Shree Cement Ltd, Beawar
## Unit-II
## Stack Emission monitoring Report ( PM All values in mg/Nm$^3$)
## Year: 2020-21

| S. No. | Month | Raw Mill & Kiln Stack | Coal Mill Stack | Cooler Stack | Cement Mill Stack |
|---|---|---|---|---|---|
| 1 | Apr-20 | SD | SD | SD | 12.2 |
| 2 | May-20 | 11.3 | 9.2 | 10.2 | 14.2 |
| 3 | Jun-20 | 9.1 | 11.7 | 12.2 | 18.6 |
| 4 | Jul-20 | 10.4 | 6.9 | 13.8 | 14.8 |
| 5 | Aug-20 | 12.3 | 7.5 | 15.3 | 14.3 |
| 6 | Sep-20 | 12.1 | 9.5 | 15.3 | 19.2 |
| 7 | Oct-20 | 11.9 | 11.7 | 18.9 | 13.4 |
| 8 | Nov-20 | 11.6 | 6 | 19 | 6.2 |
| 9 | Dec-20 | 20.1 | 7.1 | 28.1 | 8.1 |
| 10 | Jan-21 | 20.2 | 7.02 | 23 | 17.5 |
| 11 | Feb-21 | 15.01 | 8 | 18 | 15 |
| 12 | Mar-21 | 13.4 | 9 | 17 | 17 |
| **Average** | | **12.28** | **7.80** | **15.9** | **14.2** |

## Annexure: 2

**Shree Cement Ltd, Beawar**

**Ambient Air Quality (µg/m³)& Noise Level Monitoring Report For The Period Of April 2020 To Mar 2021**

Common for Cement plant & Power plant

**Year:-2020-2021**

| Location → | Plant boundary towards village Sarakana | | | | | | Residential Colony | | | | | | Plant boundary towards Power Plant | | | | | | Main Gate | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AAQ in µg/m³ | | | | Noise Level in dB(A) | | AAQ in µg/m³ | | | | Noise Level in dB(A) | | AAQ in µg/m³ | | | | Noise Level in dB(A) | | AAQ in µg/m³ | | | | Noise Level in dB(A) | |
| Parameter → | PM 10 | PM-2.5 | $SO_2$ | $NO_2$ | Day time | Night time | PM 10 | PM-2.5 | $SO_2$ | $NO_2$ | Day time | Night time | PM 10 | PM 2.5 | $SO_2$ | $NO_2$ | Day time | Night time | PM 2.5 | PM 10 | $SO_2$ | $NO_2$ | Day time | Night time |
| Apr | 51 | 22 | 6 | 8 | 52 | 45.3 | 44 | 21 | 8 | 7 | 42 | 32 | 46 | 28 | 9 | 7 | 48 | 38 | 49 | 25 | 7 | 9 | 52 | 42 |
| May | 49 | 25 | 7 | 9 | 59 | 43.5 | 46 | 34 | 7 | 8 | 44 | 35 | 52 | 31 | 9 | 11 | 60 | 52 | 53 | 27 | 8 | 13 | 59 | 48 |
| Jun | 51 | 27 | 8 | 10 | 58 | 42.1 | 43 | 26 | 6 | 11 | 46 | 39 | 55 | 29 | 7 | 10 | 61 | 49 | 55 | 22 | 7 | 10 | 62 | 55 |
| Jul | 49 | 24 | 7 | 9 | 57 | 45 | 41 | 22 | 7 | 10 | 52 | 42 | 52 | 26 | 7 | 9 | 63 | 53 | 51 | 24 | 8 | 12 | 63 | 53 |
| Aug | 50 | 26 | 6 | 8 | 54 | 43 | 39 | 20 | 6 | 8 | 53 | 43 | 43 | 21 | 6 | 8 | 58 | 49 | 44 | 23 | 7 | 7 | 64 | 57 |
| Sep | 53 | 23 | 6.2 | 7.1 | 55 | 42.8 | 40 | 18.6 | 5 | 6 | 54 | 41 | 48 | 28 | 12 | 10 | 59 | 42 | 42 | 19.5 | 8 | 8 | 68 | 55 |
| Oct | 51 | 25 | 7 | 9 | 60 | 50 | 38 | 31 | 6 | 9 | 60 | 39 | 41 | 29 | 8 | 10 | 65 | 42 | 43 | 27 | 7 | 10 | 58 | 48 |
| Nov | 47 | 25 | 7 | 9 | 68 | 41 | 42 | 29 | 7 | 10 | 59 | 35 | 41 | 24 | 6 | 7 | 66 | 38 | 45 | 27 | 6 | 10 | 63 | 47 |
| Dec | 51 | 26 | 6 | 9 | 61 | 40 | 43 | 32 | 6 | 10 | 58 | 42 | 46 | 24 | 8 | 11 | 63 | 40 | 41 | 33 | 7 | 13 | 65 | 50 |
| Jan | 54 | 29 | 6 | 10 | 72 | 42 | 41 | 22 | 6 | 8 | 60 | 40 | 47 | 31 | 9 | 13 | 62 | 39 | 46 | 32 | 8 | 14 | 63 | 44 |
| Feb | 56 | 32 | 5 | 8 | 68 | 55 | 51 | 28 | 7 | 10 | 71 | 58 | 50 | 32 | 12 | 10 | 70 | 44 | 54 | 33 | 9 | 12 | 60 | 50 |
| Mar | 58 | 30 | 7 | 9 | 66 | 49 | 53 | 29 | 8 | 12 | 65 | 43 | 52 | 34 | 10 | 12 | 65 | 55 | 50 | 30 | 12 | 11 | 69 | 51 |
| **Average** | **51.7** | **26.2** | **6.5** | **8.8** | **60.8** | **44.9** | **43.4** | **26.1** | **6.6** | **9.1** | **55.3** | **40.8** | **47.8** | **28.1** | **8.6** | **9.8** | **61.7** | **45.1** | **47.8** | **26.9** | **7.8** | **10.8** | **62.2** | **50.0** |

**Annexure: 3**

| S.N | Parameter | Apr-20 | May-20 | June-20 | July-20 | Aug-20 | Sept-20 | Oct-20 | Nov-20 | Dec-20 | Jan-21 | Feb-21 | Mar-21 | Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | pH | 7.16 | 7.13 | 7.22 | 7.56 | 7.26 | 7.14 | 7.82 | 7.56 | 7.92 | 7.12 | 7.12 | 7.85 | **7.4** |
| 2 | Suspended Solids | 31 | 29 | 32 | 22 | 27 | 29 | 25 | 22 | 21 | 23 | 24 | 21 | **25.5** |
| 3 | COD | 65.3 | 62.2 | 61.3 | 61.2 | 67.2 | 65.3 | 58.7 | 69.7 | 71.2 | 68.7 | 68.2 | 69.2 | **65.7** |
| 4 | BOD 3 days 27°C | 17 | 16.0 | 15.0 | 19.0 | 19.0 | 16.0 | 22 | 17 | 19.0 | 17.0 | 19.0 | 14 | **17.5** |
| 5 | Oil & Grease | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | **<4.0** |

| Waste Characterization | | | | | |
|---|---|---|---|---|---|
| **SN** | **Name of waste** | **Nature of waste** | **Source of industry** | **Category** | **Source** |
| 1 | Furnace or reactor residue and debris | Solid | Petrochemical Processes and Pyrolytical operations | 1.1 | **Petrochemical Processes and Pyrolytic operations** |
| 2 | Tarry residue and still bottoms from distillation | Solid | | 1.2 | **Petrochemical Processes and Pyrolytic operations** |
| 3 | Oily sludge emulsion | Semi Solid | | 1.3 | **Petrochemical Processes and Pyrolytic operations** |
| 4 | Organic residues | Liquid/ Solid | | 1.4 | **Petrochemical Processes and Pyrolytic operations** |
| 5 | Residues from alkali wash of fuels | Solid | | 1.5 | **Petrochemical Processes and Pyrolytic operations** |
| 6 | Spent catalyst and molecular sieves | Solid | | 1.6 | **Petrochemical Processes and Pyrolytic operations** |
| 7 | Oil from waste water treatment | Liquid | | 1.7 | **Petrochemical Processes and Pyrolytic operations** |
| 8 | Cargo Residue, washing water and sludge containing oil | Liquid/ Solid | Cleaning, emtying and maintenance of Petroleum Oil storage tanks including ships | 3.1 | **Cleaning Empying and maintenance of Petroleum Oil storage tanks including ships** |
| 9 | Cargo Residueand sludge containing chemicals | Liquid/ Solid | | 3.2 | **Cleaning Empying and maintenance of Petroleum Oil storage tanks including ships** |
| 10 | Sludge and filters contaminated with oil | Solid | | 3.3 | **Cleaning Empying and maintenance of Petroleum Oil storage tanks including ships** |
| 11 | Ballast water containing oil from ships | Semi Solid | | 3.4 | **Cleaning Empying and maintenance of Petroleum Oil storage tanks including ships** |
| 12 | Slope Oil | Liquid | Petroleum refining or re-processing of used oil or recycling of waste oil | 4.3 | **oil Refining** |
| 13 | Waste cutting oil | Liquid | Bearing manufacturing industries/other industry | 5.3 | **Any industry** |
| 14 | Plating metal sludge | Solid | Metal surface treatment, such as etching, staining, polishing, galvanizing, cleaning, degreasing, plating etc. | 12.8 | **Metal surface treatment, such as itching, staining, polishing, galvanizing, cleaning,degreasing, plating etc.** |
| 15 | Sludge from Acid rec | Liquid | Production of Iron and steel including other ferrous alloys (electric furnace, steel rolling and finishing mills, Coke oven and byproduct plants) | 13.2 | **Iron & Steel Industry** |
| 16 | Spent catalyst | Solid | Oil refinery/other industry | 18.1 | **Production of Nitrogen and complex fertilizers** |
| 17 | Carbon Residue | Solid | Beverage industry/other industry | 18.2 | **Production of Nitrogen and complex fertilizers** |
| 18 | Contaminated Aromatic, Aliphatic or Napthenic Solvents may or may not fit for reuse | Liquid | Production and/or industrial use of solvents | 20.1 | **Production and/Or industrial use of Solvents** |
| 19 | Spent Solvents | Liquid | | 20.2 | **Production and/Or industrial use of Solvents** |
| 20 | Distillation Residue | Liquid | | 20.3 | **Production and/Or industrial use of Solvents** |
| 21 | Process Sludge | Solid | | 20.4 | **Production and/Or industrial use of Solvents** |

| | | | | | |
|---|---|---|---|---|---|
| 22 | Spent Solvents | Liquid | Production and/or industrial use of paints, pigments, lacquers, varnishes and inks | 21.2 | **Production and/Or industrial use of Paints, pigments, lacquers, varnishes and inks** |
| 23 | Spent Catalyst | Solid | Production of plastics | 22.1 | **Production of plastics** |
| 24 | Process Residue | Solid | | 22.2 | **Production of plastics** |
| 25 | Spent Solvents | Liquid | Production and/or industrial use of glues, organic cements, adhesive and resins | 23.2 | **Production and/Or industrial use of glues, Organic cement, adhesives and resins** |
| 26 | Spent catalyst | Solid | Oil refinery/other industry | 26.5 | **Dyes & Dye Intermediate Industrty** |
| 27 | Process Waste or resid | Solid | - | 29.1 | **Production and formulation of pesticides** |
| 28 | Sludge Containing Re | Solid | - | 29.2 | **Production and formulation of pesticides** |
| 29 | Spent Solvents | Liquid | Production and/or industrial use of paints, pigments, lacquers, varnishes and inks | 29.4 | **Production and formulation of pesticides** |
| 30 | Spent catalyst | Solid | - | 29.5 | **Production and formulation of pesticides** |
| 31 | Exhaust air or gas cleaning residue | Solid | Purification and treatment of exhaust air/ gases, water and waste water from the processes in this schedule and common industrial efluent treatment plants | 35.1 | **Purification and Treatment of Exhaust air/ gases, water and waste water from processes** |
| 32 | Oil and Grease Skimming | Semi Solid | | 35.4 | **Purification and Treatment of Exhaust air/ gases, water and waste water from processes** |
| 33 | Waste exhibits any of the Hazardous characteristics listed in Class-C due to the presence of any hazardous constituents in the substances or wastes | Solid | Tyre industry, Rubber Industry, processes where carbon powder is added/ generated | Schedule II-Class-E1 | **Any industry** |
| 34 | Waste Clothes/ Cotton waste/ Fibre etc. | Solid | - | Schedule III-B3030 | **Textile industry** |
| 35 | Tyre Fibre | Solid | Tyre industry/other industry | Schedule III-B3040 | **Tyre Industry** |
| 36 | Carbide Lime Sludge | Solid | - | Schedule III-OW | **Paper Industry/ any other Industry** |
| 37 | ETP Bio solid from soft drink/ Beverage Industry | Solid | - | Schedule III-OW | **Soft drink/ Beverage industry** |
| 38 | Spent carbon from Soft drink/ beverage industry | Solid | - | Schedule III-OW | **Soft drink/ Beverage industry** |
| 39 | WTP sludge from soft drink/ beverage industry | Solid | - | Schedule III-OW | **Soft drink/ Beverage industry** |
| 40 | FF Slag/ ISF Slag | Solid | - | Schedule III-OW | **Iron & Steel Industry** |
| 41 | FMCG waste | Solid | - | Schedule III-OW | **FMCG Industry** |
| 42 | Red mud | Solid | - | Schedule III-OW | **Aluminium Industry** |
| 43 | Toxic Effluent containing chemical (Toxic effluent/ aqueous waste) | Solid | - | Schedule III-OW | **Bulk Pharma/Any Industry** |
| 44 | Plastic waste | Solid | Wind mills/ other industries | Non hazardous | **Rubber/ Tyre/ Any other industry using carbon** |
| 45 | Trade Rejects | Solid | FMCG, Pharma industry | Non hazardous | **FMCG Industry/ Pharma industry** |

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|---|---|---|---|---|---|
| 46 | Oil emulsion sludge | Semi Solid | Petroleum refining or re-processing of used oil or recycling of waste oil | 4.1 | **Oil Refining** |
| 47 | Spent Catalyst | Solid | Production and/or industrial use of glues, organic cements, adhesive and resins | 4.2 | **Oil Refining** |
| 48 | Waste/ Residues Not made with Animal/ Vegetable material | Solid | Production or industrial use of synthetic dyes, dye intermediates and pigments | 23.1 | **Production and/Or industrial use of glues, Organic cement, adhesives and resins** |
| 49 | Spent Solvents | Liquid | - | 26.4 | **Dyes & Dye Intermediate Industrty** |
| 50 | Process Residues and wastes | Solid | - | 28.1 | **Bulk Pharma Industry** |
| 51 | Spent catalyst | Solid | Production/formulation of drugs/ Pharmaceutical and heathcare product | 28.2 | **Bulk Pharma Industry** |
| 52 | Spent carbon | Solid | - | 28.3 | **Bulk Pharma Industry** |
| 53 | Off specification products | Solid | - | 28.4 | **Bulk Pharma Industry** |
| 54 | Date Expired Products (Pharma Industries) | Solid | - | 28.5 | **Bulk Pharma Industry** |
| 55 | Spent Solvent (Pharma Industries) | Liquid | - | 28.6 | **Bulk Pharma Industry** |
| 56 | Contaminated cotton rags or other cleaning materials | Solid | Handling of hazardous chemicals and wastes | 33.2 | **Any industry** |
| 57 | Spent Ion Exchange Resin Containing Toxic Metals | Solid | - | 35.2 | **Purification and Treatment of Exhaust air/ gases, water and waste water from processes** |
| 58 | Any process or distillation residue | Liquid | Purification process for organic compounds/ solvents | 36.1 | **Purification Process of Organic compounds** |
| 59 | Dust from air filtration system | Solid | Production or industrial use of Synthetic Dyes, Dye intermediates and pigments. | 26.2 | **Dyes & Dye Intermediate Industrty** |
| 60 | Empty barrels/containers contaminated with hazardous chemical/wastes | Solid | Handling of hazardous chemicals and wastes | 33.1 | **Handling of hazardous chemicals and wastes** |
| 61 | Spent carbon or filter medium | Solid | Petroleum refining or re-processing of used oil or recycling of waste oil/ Purification process for organic compounds/ solvents | 36.2 | **Purification Process of Organic compounds** |
| 62 | Used Oil | Liquid | Cement Plant, Mines | 5.1 | Own Cement Process & Mines |