1. **INTRODUCTION**

Environment audit is defined as "A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management systems and equipments are performing with the aim of (i) facilitating management control of environmental practices and (ii) compliance with company policies, including company requirements.

In India, the requirements for environmental auditing are formalized in Rule -14 of the ENVIRONMENT (PROTECTION) RULES, 1986 as below since 1992

Submission of environmental Statement

Every person carrying on an industry, operation or process requiring consent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) or both or authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 issued under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an environmental audit report for the financial year ending the 31st March in Form V to the concerned State Pollution Control Board on or before the thirtieth day of September every year, beginning 1993.

FORM –V

Environmental Statement for the Financial Year Ending 31st March, 2019 (2018-19)

Part-A

i.	Name and address of the Owner/occupier of the industry, operation or process	Madhav Alloys Pvt. Limited Address: Villages Akalgarh and Bhagwanpura,Tehsil Nabha and Amloh, District Patiala and Fatehgarh Sahib, Punjab
ii.	Industry Category Primary (SIC code) Secondary (SIC Code)	Large
iii.	Production capacity-units-	2,50,000 MTPA of TMT Bars & 2,00,000 TPA of MS Billets
iv.	Year of establishment:	2012
v.	Date of last environmental statement submitted	September,2018

Part-B

(i) WATER AND RAW MATERIAL CONSUMPTION

Water consumption (KLD)		Previous Year (2017-18)	Current Year (2018-19)
Process	-	30	30
Cooling	-	150	150
Domestic	-	32	32
Total	-	212	212

The water is used for process, industrial cooling and domestic purposes.

The water requirement is met through own tube well. The ground water analysis report is attached as **Annexure-I.**

The process water consumption per unit of product is given below:

Name of the Product	Process Water Consumption per unit of the Product Output	
	During the Current Financial Year (2017-18)	During the Current Financial Year (2018-19)
	(2)	(2)
M.S. Billets	40.22 lt.	8.00 lt.

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(ii) RAW MATERIAL CONSUMPTION

			Consumption of raw material	
	Name of Raw Material	Unit	During the Current Financial Year (2017-18)	During the Current Financial Year (2018-19)
			(2)	(2)
1.	Domestic (Scrap)	MT	1,44,299	1,59,983
2.	Import Scrap	MT	68,033	77,893
3.	Sponge Iron	MT	23,876	29,404
4.	Ferro Alloys	MT	2,174	2,655
Total Consumption			**2,34,654**	**2,69,935**

(iii) PRODUCTS DETAILS

Products	Quantity Manufactured (Year 2017-2018)	Quantity Manufactured (Year 2018-2019)
MS Billets	2,23,767 MT	44,035.72 MT
TMT Bars	1,77,615 MT	1,99,396.19 MT

(iv) FUEL CONSUMPTION

Details of the fuel consumption are given below:

S.No.	Type of Fuel	Consumption (KL/Annum)	
		2017-2018	2018-2019
1.	HSD	79	54

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Part – C

POLLUTION DISCHARGE TO ENVIRONMENT/UNIT OF OUT PUT
(PARAMETER AS SPECIFIED IN THE CONSENT ISSUED)

(i) WASTEWATER (Outlet of STP)

Pollutants*	Concentration of Pollutants in Discharge mass/volume(mg/l)	Quantity of Pollutant's Discharged (mass/day)Kg/day	Percentage of Variation from Prescribed Standards with Reason
pH	7.6	--	Within permissible limits
TDS	420	12,600	Within permissible limits
TSS	18	540	Within permissible limits
BOD	10	300	Within permissible limits
COD	30	900	Within permissible limits
Oil & Grease	1.1	33	Within permissible limits

Test reports are attached along as **Annexure-II.**

(ii) STACK EMISSION ANALYSIS

Test reports of Stack Emission Monitoring carried out during year are attached at **Annexure-III**.

(iii) AMBIENT AIR ANALYSIS

Location of Sampling Point		**Near Sub-Station Area**
Date of Sample Collection		20-10-2018
S. No.	**Parameters**	
1.	PM_{10} (µg/m^3)	83.4
2.	$PM_{2.5}$(µg/m^3)	42.9
3.	SO_2 (µg/m^3)	10.4
4.	NO_2 (µg/m^3)	25.8
5.	Ammonia (µg/m^3)	ND
6.	Ozone (µg/m^3)	40.0
7.	Carbon Monoxide (mg/m^3)	0.82

Test Reports attached at **Annexure-IV.**

Part- D

HAZARDOUS WASTE

(As Specified Under Hazardous Waste (Management and Handling) Rules, 2016)

S.No	Hazardous wastes	Total Quantity	
		During the Current Financial Year (2017-18)	**During the Current Financial Year (2018-19)**
(a)	APCD Dust (MT)	1,806	971.61
(b)	ETP Sludge (Kg)	10	07
(c)	Spent Oil (Litres)	-	50

Annual return (form IV) as prescribed in the Hazardous Waste (Management, Handling & trans-Boundary Movements) Rules, 2016 has been submitted; copy of Form-IV is attached as **Annexure-V.**

Part – E

SOLID WASTES

S. No.		During the current financial year (2017-18)	During the current financial year (2018-19)
(a)	From process (Mill-Scale/Slag (MT))	12,000	5,950
(b)	From pollution devices (STP Sludge (MT))	0.12	10.2

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Part-F

Please specify the characteristics (in terms of composition of quantum) of hazardous as well as solid waste and indicate disposal practice adopted for both these categories of waste.

Hazardous Waste Disposal

The hazardous waste generated i.e. APCD dust is recycled within the industry and other waste is disposed to the authorized vendor/TSDF. Annual return (form IV) as prescribed in the Hazardous Waste (Management, Handling & trans-Boundary Movements) Rules, 2016 has been submitted; copy of Form-IV is attached as **Annexure-V.**

Solid Waste Disposal

The sludge from STP is used as manure in green area. Domestic solid waste is segregated and the recyclable part is sold to local vendors. The biodegradable waste is converted into compost and used in green area.

Part –G

Impact of the pollution abatement taken on conservation of natural resources and on the cost of production:-

Management is highly conscious in conserving environment and controlling pollution. Implementation and monitoring of Environment Management Plan is under the direction of top management.

I. The use of treated effluent for irrigation has resulted in reduced fresh water demand.

II. The green belt and landscape has helped in improving the land use within the project site.

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Part – H

Additional measure/investment proposal for environmental protection including abatement of pollution, prevention of pollution

There is a pro-active approach towards improvement. The Management of M/s Madhav Alloys Pvt. Ltd. is quiet conscious for the issues related to environmental management and pollution control. A number of measures have been taken by the industry for this purpose; few of which are as below:-

1. Tree plantation drive, planting popular trees.
2. Installation of State-of-Art APCD for air pollution control.
3. Provision of STP and ETP for wastewater treatment.
4. Waste Recycling Division (WRD) for recovery of Zinc from APCD dust.
5. Cleaning of adopted pond for rainwater storage.

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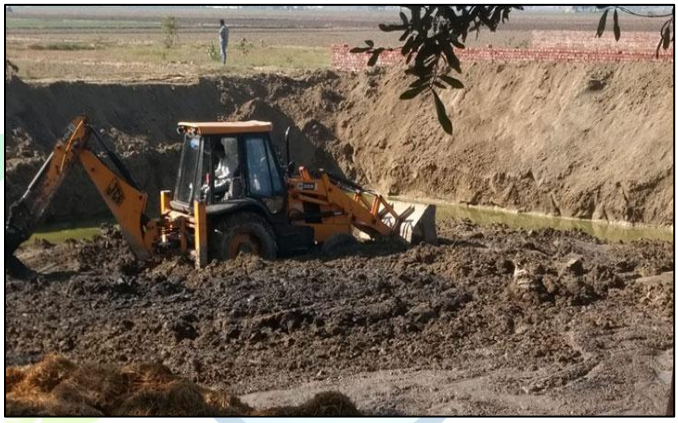
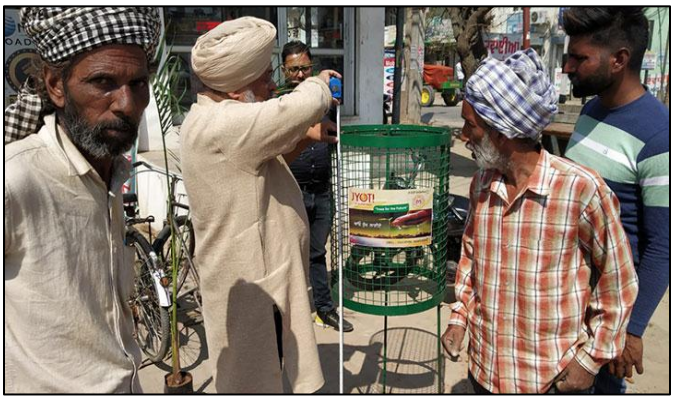
Part – I

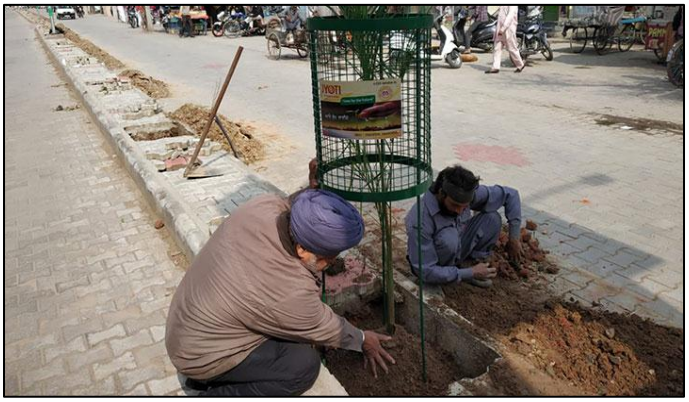
Any other particulars for improving the quality of the environment

The industry undertakes various environmental awareness programmes under the CSR activities. Rs.10.72 Lakhs has been spent on CSR activities for FY 2018-2019. Photographs of some of the CSR activities are shown below:-



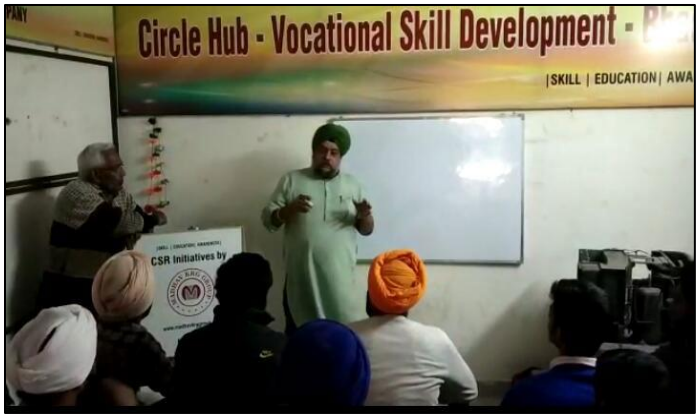
Pond cleaning in local area



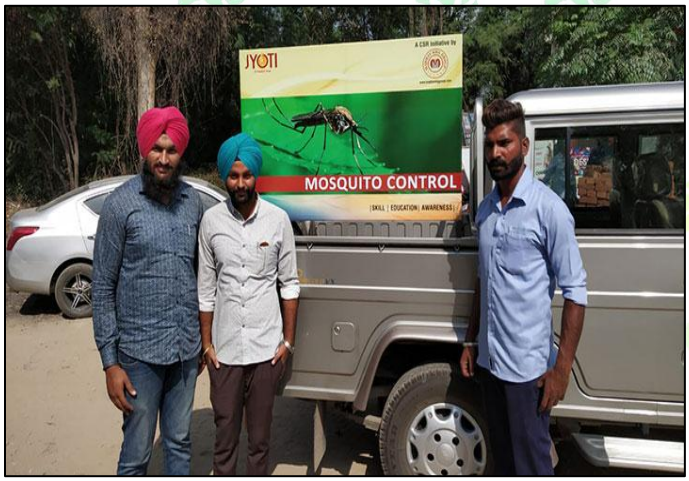


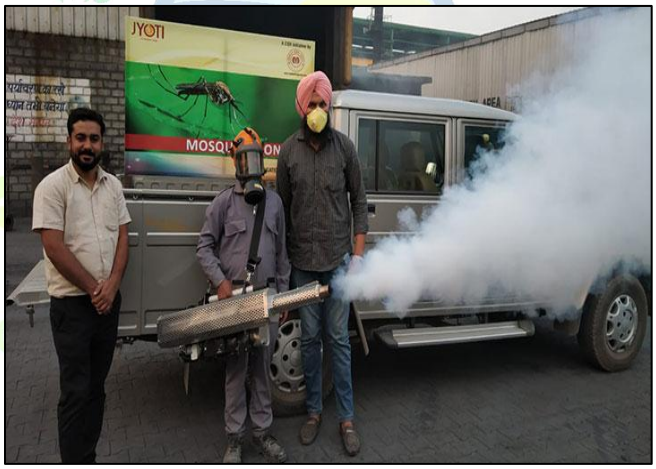
Tree Guard Installation

Client: Madhav Alloys Pvt. Limited, Villages Akalgarh and Bhagwanpura, Tehsil Nabha and Amloh, District Patiala and Fatehgarh Sahib, Punjab



Skill Development Training





Health & Hygiene Initiative