

Sasan Power Limited

Moher & Moher Amlohri Extension Opencast Coal Mine Project
Village-Amlohri, Post-Pondi Naugai
Waidhan-486886, Dist: Singrauli,
Madhya Pradesh

MMAEOCM /CM/ ESR/2021-22/ 96

02.09.2021

To,
The Member Secretary,
Madhya Pradesh Pollution Control Board
Paryawaran Parisar,
E-5, Arera Colony,
Bhopal-462016

Sub: Submission of Environmental Statement FY 2020-21 of Moher & Moher-Amlohri Extension Opencast Coal Mine (MMAEOCM) .


Ref.: MoEFCC Notification G.S.R 386(E) Dated. 22.04.2016 on submission of Environmental Statement under rule 14 of Environment Protection Act, 1986.

Dear Sir,

Please find enclosed the Environmental Statement for the Financial Year 2020-21 of Moher & Moher- Amlohri Extension Opencast Coal Mine (MMAEOCM) of M/s Sasan Power Ltd.

Submitted for your kind consideration and perusal please.

Thanking You.


02.09.21

**Umesh Mahato
(Nominated Mine Owner -MMAEOCM)**

For Sasan Power Limited (Coal Mines)

Encl. As above

CC: 1.) The Regional Officer, MPPCB, Singrauli, (MP)

FORM-V

(See rule 14 of Environment Protection Act, 1986)

Environmental Statement for the financial year ending the 31st March 2021

PART-A

| | | |
|----|--|--|
| 1. | Name and address of the owner/occupier of the industry operation or process. | Sh. Umesh Mahto, Mines Owner, Moher & Moher-Amlohri Extension OCP, SASAN POWER LIMITED, Vill – Amlohri, Post – Pondi Navgai, Dist – Singrauli, Madhya Pradesh, PIN –486886 |
| 2. | Industry category Code: Primary ----(SIC code) Secondary.----- (SIC Code) | Primary(SIC code) : 1200 (MINING) Secondary(SIC Code): 1240 (Coal Mining) |
| 3. | Production capacity (Unit) : | As per EC Letter Dt. 30 th June 2015: Normative : 15 MTPA, Peak: 20 MTPA* As per Consent to Operate by MPPCB: 20 MTPA* |
| 4 | Year of establishment : | 2010-2011 Coal Production started on 3 rd Sept. 2012 |
| 5 | Date of the last environmental statement submitted | 24.07.2021 for FY 2019-20 |

PART-B

Water and River Material Consumption

| | | |
|-----|--|---------------------------------|
| 1. | Water Consumption for the period April'20 to March'21 (m³) | |
| | Purpose/category | Quantity (m³) |
| 1.i | Category-I: Industrial cooling/spraying in mine pits for dust suppression | 676480 |

ENVIRONMENTAL STATEMENT
for FY-2020-21 of MOHER & MOHER-AMLOHRI EXTENSION
OPENCAST COAL MINE

RELIANCE

SASAN POWER LIMITED

| | | |
|--|---|---|
| | Category-II: Domestic Purpose | 28365 |
| | Category-III: wash water at transfer points/CHP/mine water/ others | 874544 |
| 1.ii | Raw Material Consumption for the period April'20 to March'21 (m³) | |
| | Name of Products | Water consumption per unit of Products |
| | | <div>During the previous financial year 2019-20</div> <div>During the previous financial year 2020-21</div> |
| | Coal Coal production for FY 2019-20: 18.7 Million Metric tonnes | This is an open cast coal mine producing sized ore and fines. Water is required for dust suppression on haul roads, transfer points, etc. |
| 2 | Raw Material Consumption for the period April'20 to March'21 (m³) | |
| | Name of raw Materials* | Name of products <div>Consumption of raw Materials</div> <div>During the previous financial year 2019-20</div> <div>During the previous financial year 2020-21</div> |
| | NA | Coal production for FY 2020-21: 18.57 Million Metric tonnes. This is an open cast coal mines. So after blasting in the pits, RoM (Run off mine) is fed to Screening & Crushing unit to produce different sized ore. Whatever material is fed for processing, same comes out as output of different size fractions. |
| PART-C | | |
| Pollution discharged to environment/unit of output (Parameter as specified in the consent issued) | | |
| | Pollutants | Quantity of Pollutants discharged(mas s/day) Concentration of Pollutants discharged (mass/volume) Percentage of variation from Prescribed standards with reasons. |
| | No Discharge | NIL Not Applicable |

| | | | | | |
|-------|--------------------------|---|----------------------------------|-------------------------------|--|
| 1 | Water | There is no discharge of effluent outside the mine premises. The waste water generated during the washing of HEMMs and other vehicles are treated at ETP having capacity of 50 m ³ /hr. Treated water is reused for dust suppression in mines and plantation purpose. Analysis reports of treated waste water are being submitted along with EC compliance report. | | | |
| 2. | Air (Ambient Air) | The quality of ambient air quality in & around the coal mine area qualifies the National Ambient Air Quality Standards 2009. Results are ambient air quality are as follows: | | | |
| | Parameters | Core Zone Concentration | Buffer Zone Concentration | Standards (NAAQS-2009) | Variation from prescribed standards |
| 2.i | PM₁₀ | 49.5 - 69.1 | 40.1 - 50.4 | 100 | Nil |
| 2.ii | PM_{2.5} | 23.5 - 38.9 | 17.2 - 28.6 | 60 | Nil |
| 2.iii | SO₂ | 12.2 - 36.8 | 4.6 - 16.1 | 80 | Nil |
| 2.iv | NO_x | 19.8 - 39.8 | 9.6 - 20.4 | 80 | Nil |

Note:- All the concentrations are in microgram/cubic meter (µg/m³)

PART-D
HAZARDOUS WASTES
(As specified under Hazardous Wastes (Management & Handling Rules, 1989).

| 1 | Hazardous waste | Total Quantity | |
|-------|---|---|--|
| | | During the Previous financial year 2019-20 | During the Current financial year 2020-21 |
| 1.i | From Process (Maintenance of HEMM): Used Oil/Spent Oil (HW-5.1) | 321.0 MT (Metric Tonnes) | 398. MT (Metric Tonnes) |
| 1.ii | From Process (Maintenance of HEMM): Residual Waste contaminated with oil (HW-5.2) | 42.06 MT (Metric Tonnes) | 89.4 MT (Metric Tonnes) of Mining operation. |
| 1.iii | From Pollution Control facility | Nil | Nil |

ENVIRONMENTAL STATEMENTfor FY-2020-21 of MOHER & MOHER-AMLOHRI EXTENSION
OPENCAST COAL MINE**RELIANCE****SASAN POWER LIMITED**

| | | |
|------|--|--|
| 1.iv | Quantity recycled or re-utilised. | Hazardous Waste generated at site is disposed off through SPCB authorised recycler / reused within mining purposes following due standard practices. |
| | Note: Annual return in Form-4 under Rule 5(6) & 22(2) is regularly being submitted at MP Pollution Control Board. | |

**PART – E
SOLID WASTE**

| 1 | Solid Waste | Total Quantity Generated | |
|-------|-----------------------------------|--|---|
| | | During the Previous financial year 2019-20 | During the Current financial year 2020-21 |
| 1.i | From Process: (Over burden-OB) | 74.11 MBCM | 72.19 MBCM |
| 1.ii | From Pollution Control facility | Nil | Nil |
| 1.iii | Quantity recycled or re-utilised. | Nil | Nil |

PART- F

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

| 1. | Waste Type | Disposal Practice |
|------|-----------------|--|
| 1.i | Hazardous Waste | No Hazardous waste is generated from the process of coal mining. Used oil (HW Cat-5.1) and Wastes or residues containing oil (HW Cate-5.2) are generated from the maintenance of HEMM / other Equipments. These Hazardous Wastes are stored in barrel and kept over an impervious floor under specifically designed Hazardous Waste Storage shed with all necessary facilities such as collection sumps, Absorbents, Absorbent pads, Rolls, Spill Pallets, etc at site till its disposal through authorized recycler or reuse in mining process. |
| 1.ii | Solid Waste | Mine Over Burden (OB) is the only solid waste generated out of mining activity and is being dumped at allocated external / internal dump sites. |

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

Sasan Power – Moher & Moher Amlohri Ext. OC Mines has taken every possible measure to mitigate the environmental pollution during mining. Following are some measures to control / manage the pollution load:

- One ETP (50 m³/Hr. capacity) is operational for the treatment of waste water generated from workshop.
- Four (04) nos. of 70 KL capacity water sprinklers fitted with Pneumatic water valves have been deployed for fugitive dust suppression on haul roads.
- Water nozzle spraying system in addition to Dry Fog System implemented at Transfer points and CHP. Water spraying through stationary water sprinkling system at coal stock and other significant areas.
- Approximately 10 km of Garland drains have been made around external OB dump area to arrest the siltation from OB dump.
- Adequate drainage systems with proper check dams (4 nos.) were made in major drain and periphery of coal handling areas.
- Three numbers of bio digesters based on reed bed based technology have been installed at site for the treatment of Sewage.
- In FY: 2020-21 total number of plants planted under greenbelt development activities is approx 0.63 lakhs. Cumulative total number of plants planted so far by the end of FY: 2020-21 is approx 2.15 lakhs Species selected for Greenbelt Development consists of various native species such as Alstonia scholaris, Acacia auriculiformis, Cassia fistula, Karanj, Kadamb, Nerium, Thevitia and fruit species such as Mango, Guava, Jamun, etc.
- Top soil is used for reclamation, slop, stabilization, greenbelt development etc. There is a designated place for the stacking of topsoil for further use in bio-reclamation purpose. SPL has recovered cumulative 6,46,483 cubic meter of topsoil till 31st March-2021, At the end of FY 2020-21 approx 32,400 m³ top soil available the stockyard for its utilization in greenbelt development and maintenance activity

PART-H

Additional measures/investment proposal for environmental protection including abatement of pollution.

- | | |
|---|---|
| 1 | <ul style="list-style-type: none"> ➤ Installed fixed type water sprinklers with butterfly valve length 2.6 km swing distance: 24-33 meter for fugitive dust suppression on haul road . ➤ Highly Efficient dust extraction system by effective operation of Bag filter to be improvised for crusher house and CHP Operation ➤ SPL has deployed Atlas Copco designed blast hole drills fitted with Hydraulically retractable dust curtains to ensure efficient dust extraction system to be in place. ➤ SPL has also deployed two no's of Draglines and six no's of Shovels for ensuring minimal Power Consumption –Energy savings, accompanied by higher productivity with AC IGBT electrics to ensure less Heat and Noise and green house generation. ➤ Rainwater-harvesting structures have been constructed to facilitate ground water recharging. |
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PART-I

MISCELLANEOUS: Any other particulars in respect of environmental protection and abatement of pollution

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|---|---|
| 1 | <ul style="list-style-type: none"> ➤ Environment Department carries out monitoring, maintenance of pollution control equipment and for Green Belt development ➤ Monitoring of ambient air quality, noise, soil, DG stack emission and water quality is being carried out regularly by an MoEFCC approved and NABL Accredited laboratory. ➤ An Automated Weather Station is maintained for monitoring micrometeorological parameters at site. |
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Note: - *Million tonnes per Annum