EXECUTIVE SUMMARY

OF

DRAFT
ENVIRONMENT IMPACT ASSESSMENT &
ENVIRONMENT MANAGEMENT PLAN REPORT
FOR

Cement Grinding Unit of 0.60 MTPA Capacity
(Product Mix of OPC, PPC, PSC & PCC)
In two phases
Phase- 1: 0.30 MTPA & Phase- 2: 0.30 MTPA

of

M/s MITTALTECH STEEL & CEMENT PVT. LTD.
Vill- Kurari, Durgawati,
Dist: Kaimur, Bihar

ENVIRONMENT CONSULTANT

VISIONTEK CONSULTANCY SERVICES PVT. LTD
(An Enviro Engineering Consulting Cell)
Plot No.-M 22 & 23, Chandaka Industrial Estate Patia, Bhubaneswar-24

EXECUTIVE SUMMARY

1. GENERAL DETAILS

Name of Project	:	**MittalTech Steel & Cement Pvt. Ltd.**
Administrative Office	:	B-1, 503, Jalalpur City, Bailey Road, Patna, Bihar – 801503, India.
Plant Location	:	Village: Kurari, Durgawati Dist: Kaimur, Bihar
Proposed Activity		Cement Grinding Unit of 0.60 MTPA
Total Fixed Investment	:	Rs. 4556.73 Lakhs
Investment for EMP	:	Capital Cost – Rs. 225.00 Lakhs Recurring Cost – Rs. 17 Lakhs/annum
Budget for Peripheral Development	:	Rs. 91.15 Lakhs
Employment Potential	:	45
Land Details	:	4.08 Acres.
Location Details		
Latitude	:	25^0 12' 37.5" N
Longitude	:	83^0 26' 43.2" E
Topo Sheet No.	:	G 44R8
Topography	:	Flat with gentle slope
Nearest Highway / State Highway	:	NH 2 - 2.0 km
Nearest Railway Track	:	Karmanasa Railway Station – 3.5 Km (NW)
Nearest River	:	Karmanasha River – 4.0 Km
Adjacent Habitation	:	Kurari – 0.5 Km

2. PROJECT DETAILS

Proposed unit is a greenfield project for installation of Standalone Cement Grinding Unit of 06.0 MTPA Capacity (Product Mix of OPC, PPC, PSC & PCC). Land area of 4.08 Acres has already been acquired at village - Kurari, Durgawati, District Kaimur, Bihar.

STATUTORY COMPLIANCE

The proposed project, as per the EIA Notification S.O. 1533, dated 14.09.06 is processed as Category A (Due to applicability of General Condition - Inter State Boundary, within 5 Km radius).

MANUFACTURING PROCESS

Totally dry process with 2 x 1000 TPD Ball Mills and Coal Based HAG-Slag dryer is envisaged for the project to achieve the desired production. Manufacturing process comprises of following steps:

- Raw material unloading & storage
- Raw material handling & conveying
- Slag drying and/or handling of fly-ash
- Charging of raw material in desired proportion in the ball mills
- Cement grinding in a closed system
- Storage of cement in the silos
- Packaging & Despatch

RAW MATERIAL REQUIREMENT

Clinker, Fly Ash, Slag and Gypsum are the raw materials required for production of cement and Coal for HAG slag dryer.

Raw Material	For OPC	For PPC	For PSC	For PCC
	TPA	TPA	TPA	TPA
Clinker	570000	384000	240000	210000
Slag	-	-	330000	240000
Fly Ash	-	186000	-	120000
Gypsum	30000	30000	30000	30000
Fuel				
Coal (max)		-		13500 TPA

Raw materials will be transported through rail and road (by covered trucks).

LAND USE

The total area of land acquired by the company for the project is about 4.08 acres at Village: Kurari, Durgawati, District- Kaimur of Bihar.

SL	Usage	Area in acres
1	Plant Area (Phase1 -0.410 ac + Phase2 – 0.323 ac)	0.733
2	Office Building Area	0.016
3	Raw Material Storage Area	0.547
3	Plantation Area & Greenbelt	1.360
4	Road, Truck Parking and other structures	1.424
	TOTAL	**4.08**

MANPOWER REQUIREMENT

Total man power requirement during operation phase of plant at full capacity will be around 45 persons. Preference will be given to local qualified persons.

Sl.	Type	Number
1	Manager (Works & Commercial)	5
2	Skilled Workers	14
3	Semi-Skilled	10
4	Unskilled Workers	16
	Total	**45**

POWER

Total estimated power requirement is 4000 KVA (2000 KVA for each phase). The power shall be sourced through South Bihar Power Distribution Company Limited. There will be provision of 2 x 500 KVA DG sets as standby power generators.

WATER REQUIREMENT

The total estimate water requirement is 6.5 m^3/day. Due permission from concerned authority (CGWA) for drawl of water will be obtained.

SL	Usage	Make Up Water (m^3/day)
1	Industrial use (Cooling)	2.5
2	Domestic	2.5
3	Greenbelt, Plantation & Sprinkling	1.5 (reuse treated Wastewater)
	TOTAL	**6.5 m^3/day**

3. PRESENT ENVIRONMENT SCENARIO

Features of On- Site Data:

Site specific data for the winter season was collected in the study area for the period December 2019 to February 2020.

Air Environment

AAQ data at the site and the other stations (total 8 locations) in the study area are within the standards as per NAAQS 2009. PM10 maximum values in the study area ranges from 81.8 µg/m3 to 90.6 µg/m3. $PM_{2.5}$, ranges from 49.1 µg/m3 to 54.4 µg/m3. Whereas SO_2 maximum data ranges from 12.6 µg/m3 to 14.4 µg/m3 and NOx maximum value ranges from 17.2 µg/m3 to 24.6 µg/m3. Slight higher values are due to industrialization in the area and use of fuel by the nearby villages in the winter season.

Water Environment

Surface water

Samples were collected from Karmanasha Nadi, Gohwan Nadi, Pond near Village and Canal across the major habitations. pH varied from 7.32 to 8.7 while turbidity varied from 6.8 to 60 NTU. Total Dissolved Solids varied from 158.0 to 526.0 mg/l, Dissolved oxygen varied from 6.2 to 7.9 mg/l, BOD varied between <1.8 and 2.8 and Chloride varied between 1.4 mg/l and 19.5 mg/l. Nitrates varied from 0.59 to 2.6 mg/l, while sulphates varied from 11.64 to 18.2 mg/l Heavy metals reported values are below standard limit.

Ground Water

In order to assess the ground water quality, tube well, dug well waters were analysed from adjoining villages of the study area and also dug well in the vicinity of the site. pH value varied from 7.8 to7.51 while turbidity was within 1.2 to 1.8 mg/l,. Chloride varied between 4.3 mg/l & 7.2 mg/l. Ground water quality of the study area conforms to the IS- 10500.

Noise Quality

Ambient noise levels were measured at 8 locations in and around the project site. Noise levels vary from 38.3 to 70.7 Leq dB(A) during day time and 33.1 to 66.7 Leq dB(A) during night time. Noise levels in the study area are found well within the prescribed limits by the CPCB..

4. ENVIRONMENT IMPACT & MITIGATIVE MEASURES IMPACT:

Environmental Attributes	Project Activity / Aspects	Impact without EMP	EMP
water Environment	Use of water from bore well	Decrease in water level & increase in concentration of impurities	• Rain Water Harvesting & Conservation • Primary treatment of wastewater and reuse • Recycle / re-use plan for minimizing withdrawal. • No discharge from the premises.
Air Environment	Dust emission during construction phase & operational phase and vehicular movement. Fugitive emissions containing particulate matter & gases during operation phase.	Deterioration of AAQ due to increase in PM and gaseous emissions	• 16 Nos. Bag Filters will be installed in various sections. • 1 Cyclone Separator with Bag Filter in HAG - Slag Dryer. • All APCS will be designed to meet the emission standards of PM < 30 mg/Nm3 • Green belt, water sprinkling, concrete road, covered storage and closed conveyors for control of fugitive emissions
Noise Environment	Noise from machineries, and vehicles during construction & operation phase	Increase in noise level at few sections of the plant	• Proper rating, servicing & maintenance of machinery • Isolation, proper housing / enclosure for noise generating equipment and machineries • green belt development & PPEs for workers.
Socio-Economic Environment	Employment generation during construction & operation phase	Positive but limited Local employment & CER development	• Direct and indirect employment from local areas • Improvement in skill level of workers • Projects under CER
Land Environment	Variation of land use due to Construction of Plant	Developmental use of industrial land	• Such impacts would be location specific and limited to existing land under industrial activity

General Measures:

- 5 Nos. of main Bag Filters will be installed at Cement Mill 1 – 1 No., Cement Mill 2 – 1 No., Unloading section – 1 No., Raw material section – 1 No. & Packing section – 1 No.
- Cyclone & Bag Filter will be provided in coal fired Slag Dryer-Hot Air Generator (HAG).
- 11 other small bag filters will be installed locally at cement silo top, separators, mill hoppers, fly ash bin & silos etc. for control of process and fugitive emissions.
- Installation of dust-collectors/Bag filters to control the PM emissions within prescribed standards of < 30 mg/Nm^3.
- Fly Ash will be stored in silos and conveyed in closed pneumatic system.
- Cement will be stored in Cement Silos and conveyed in closed pneumatic system.
- Coal, Gypsum, Clinker & Slag will be stored in covered shed/storage yard.
- Regular preventive inspection and maintenance of pollution control equipment like Cyclones, Bag filters and PUC for vehicles will be implemented.
- Greenbelt/Plantation in 1.36 acres of the total plant area. Trees will be planted with Local plant species at suitable grid spacing to encourage proper growth.
- Properly insulated enclosures will be provided to equipment generating heavy noise.
- Isolation of continuously vibrating structures/ machines by proper and secured mountings.
- Providing PPEs to all workers in the manufacturing and handling areas.

- No generation of Industrial wastewater as no requirement of process water in operation for the unit. Make-up water will be added in cooling water circuit for evaporation, blow down and line losses.
- The domestic waste water generated will be treated in STP (Primary). Treated water will be used for water sprinkling and greenbelt development/plantation.
- No waste water will be discharged outside the plant premises. RWH plan will be prepared and implemented..

GREEN BELT DEVELOPMENT PLAN

Total Green belt area will be about 1.36 acres. Trees will be planted with Local plant species at suitable grid spacing to encourage proper growth.. A three tier plantation scheme comprising of: Outer ring of tall thick canopy tree – Middle ring of less taller trees – Inner core layer of tolerant species. In addition parallel rows of trees will be planted on either side of roads with traffic movement.

OCCUPATIONAL SAFETY AND HEALTH

Pre / Post-employment checkup will be carried out annually and following tests will be conducted:

i. Chest X ray PA view
ii. Vision testing (Far & Near vision, color vision and any other ocular defect)
iii. ECG (Heart Function)
iv. Blood Pressure & Blood Sugar Fasting
v. Complete physical examination
vi. Post-employment occupational health check-up such as lung function, audiometry, spirometry, Hearing test Profile etc.
vii. Medical records of each employee will be maintained separately and will be updated as per finding during monitoring.

SOLID WASTE GENERATION AND DISPOSAL

Non Hazardous Waste:

The dust collected in the air pollution control equipment in the cement plant will be recycled back to the process. Hence no solid waste which requires disposal is generated from the plant. Ash generated from the Slag Dryer-HAG will be either reused in process or supplied to outside Fly Ash Brick manufacturers.

Hazardous Waste:

The unit will store the hazardous waste such as used oil in a designated area. Used/Spent Oil from the gear boxes and other wastes will be disposed to the authorized vendors as per the Hazardous & Other Wastes (Management and Transboundary Movement) Rules 2016.

ESTIMATED CAPITAL INVESTMENT FOR IMPLMENTATION OF EMP

Sr. No.	Particulars	Capital cost in Rs. lacs	Recurring cost in Rs. Lac/annum
		Total (Phase-I & Phase-II)	
1.	Air Pollution Control	138.00	5.00
2.	Water Pollution Control	14.00	2.50
3.	Noise Pollution Control	8.00	1.20
4.	Environment Monitoring & Management	14.00	2.00
5.	Occupational Health	12.00	3.00
6.	Green Belt/plantation	14.00	2.00
7.	Others (Housekeeping)	25.00	1.30
Total		**225.0**	**17.0**

BUDGET FOR CER

The Company shall provide infrastructure help to set up local centers for primary learning and education, drinking water & sanitation, training & self-employment facility and medical facility locality. A total budget of Rs 91.15 Lakhs has been kept for CER activities.