

# INSPIRE INDUSTRIES PVT. LTD.

## Executive Summary

For  
Proposed 0.999 MTPA Coal Washery

At  
**Village: Bhelai, Tehsil: Baloda,  
District: Janjgir-Champa, Chhattisgarh**



**Envirotech East (P) Limited**

An ISO 9001:2008, 14001:2004 & OHSAS:18001:2007  
Company Laboratory recognised by Ministry of Environment & Forests, Govt. of India

Bengal Ambuja Commercial Complex  
UN F13, 1050/1, Survey Park, Kolkata 700 075, India  
Ph: (033) 2418 8127 / 8128 / 8601, e-mail: eeplkol@gmail.com

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## 1.0 INTRODUCTION

M/s. Inspire Industries Private Limited (IIPL), a Private Limited company having its registered office at “Mahavir Inspire House”, Behind Pt. Dindayal Garden, Vyapar Vihar, Bilaspur-495 001 in the state of Chhattisgarh. The date of incorporation of the company is 30<sup>th</sup> day of November, 2007. At present, the company is in the business of coal trading in the State of Chhattisgarh and Maharashtra.

In order to maintain consistent quality of coal for supply to its various customers, IIPL intends to set up a 0.999 MTPA (throughput of coal) Coal Washery at village Bhelai, Tehsil Baloda, Dist. Janjgir-Champa in the state of Chhattisgarh at an investment of Rs.11.573 Crores for the beneficiation of coal.

M/s Envirotech East Pvt. Ltd. have conducted an Environmental Impact Assessment (EIA) for the proposed coal washery at village Bhelai, Tehsil Baloda, Dist. Janjgir-Champa in the state of Chhattisgarh and formulated an appropriate Environmental Management Plan (EMP) for such proposed project.

## 2.0 SITE LOCATION

The proposed 0.999 MTPA coal Washery unit is located under Gram Panchayat Bhelai at village Bhelai, Tehsil Baloda, Dist. Janjgir-Champa in the state of Chhattisgarh. The site is located between latitude 22°08'10"N and longitude 82°28'20"E. Existing ground level of the site premises is 289 m above MSL. Total land required for the proposed project will be 19.53 acres. The nearby town is Akaltara, more than 13 km southern side of site. District Head Quarter Janjgir is about 19 km from the project site. Nearest Railway Station Akaltara is within 13 km from the project site. The nearest airport is Raipur which is around 160 km from the project site.

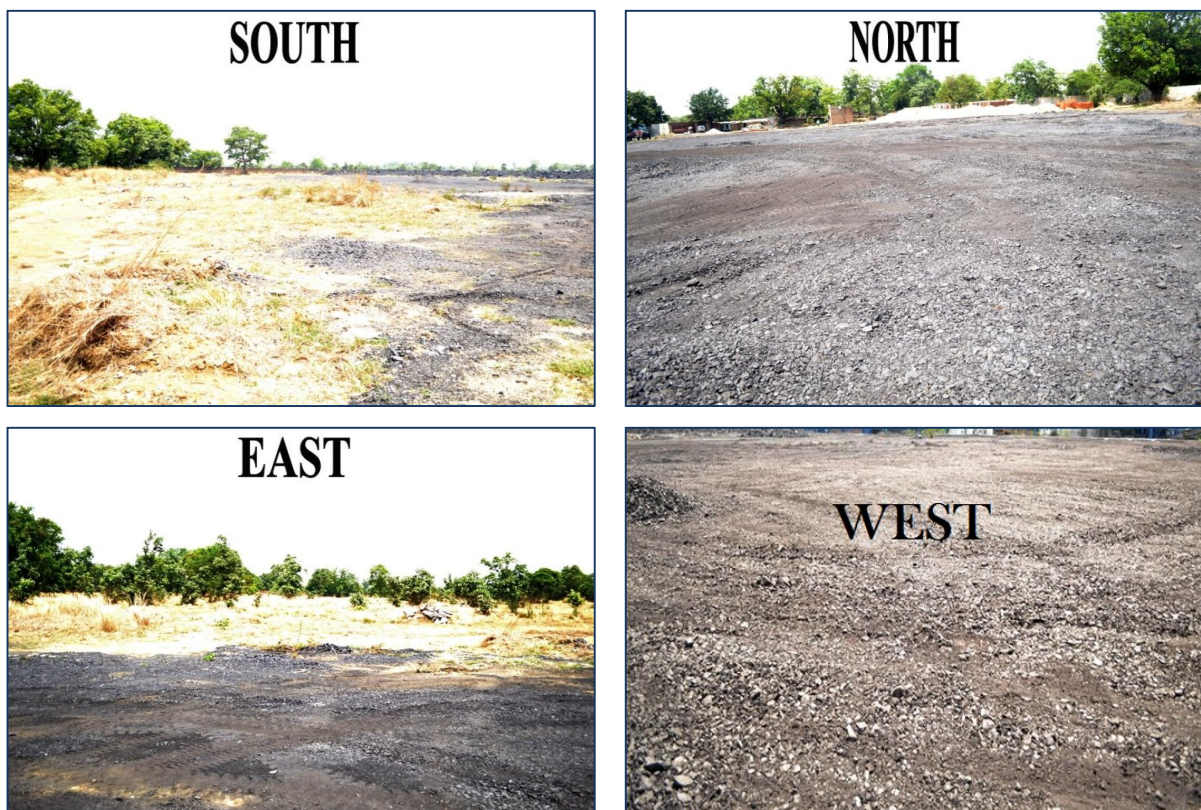
## 3.0 PROJECT HIGHLIGHTS

The principal features or highlights of the proposed coal washery of IIPL under study are as follows,

Location	Village Bhelai, Tehsil Baloda, Dist. Janjgir-Champa in the state of Chhattisgarh. The site is located between latitude 22°08'10"N and longitude 82°28'20"E with mean sea level as 289 m.
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Land requirement	Total land required for the proposed project will be 19.53 acres which is non-cultivated non-irrigated agricultural land diverted for Industrial purpose.
Raw water requirement & source	The raw water will be sourced from borewells. As per an initial estimate, water to the tune of 450 cu.m/day (400 cu.m/day for coal washing and balance 50 cu.m/day for dust suppression, gardening and domestic use) will be required for the proposed project. Application for permission of withdrawal of water from borewells has been filed to Central Ground Water Board (CGWB).
Power requirement	The estimated power requirement for the proposed project is 750 KVA, which will be sourced from Chhattisgarh State Electricity Board (CSEB).
Effluent generation & disposal	The coal washery shall be designed with close circuit water system ensuring zero effluent discharge. For treatment of wastewater Thickener and settling ponds shall be provided with ETP. Treated wastewater will be re-used in the process. The domestic waste water shall be treated in the Septic Tank-Soak Pit system.
Air pollution control	Adequate control measures like installation of Dust Suppression System, Bag Filter, Pocket Filter, Covered Conveyors etc. at the desired point.
Solid Waste Management	Rejects will be the only solid waste from the coal washery, which will be supplied to nearby industries/ Brick Manufacturers for its subsequent use in AFBC Boilers/ Brick Kilns.
Manpower	100 persons
Project cost	Rs. 11.573 Crores



### PROPOSED PROJECT SITE

#### 4.0 BASELINE ENVIRONMENTAL SCENARIO

The area falling within the radius of 10 km around the proposed coal washery at village Bhelai, Tehsil Baloda, Dist. Janjgir-Champa in the state of Chhattisgarh has been considered as study area. On-site environmental quality monitoring was carried out from October, 2013 to December, 2013.

##### 4.1 Meteorology

The monthly maximum and minimum temperatures recorded on-site during the aforesaid monitoring period varied between (28.5-34.0)°C and (9.0 -17.0)°C respectively with overall maximum and minimum temperatures being 34.0°C and 9.0°C respectively.

The overall mean wind speed during the study period was 3.3 km/hr. The most predominant wind direction was observed as 'North'.

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#### 4.2 Ambient Air Quality

Ambient air quality was monitored at ten (10) locations in and around the project site.

The overall mean values of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>2</sub> in the area (mean of all the 10 locations) were 52.7 µg/m<sup>3</sup>, 19.8 µg/m<sup>3</sup>, 7.4 µg/m<sup>3</sup> and 11.4 µg/m<sup>3</sup> respectively.

#### 4.3 Water Quality

Water samples were collected and analyzed at eight (8) locations including Lilagar River to assess the surface water quality in the study area and at other nine (9) locations to assess the baseline status of the ground water quality of the study area.

Both the surface and the ground water in the study area is free of any kind of industrial and urban pollution and has been found to be generally fit for human consumption.

#### 4.4 Noise

A total of 10 locations around the proposed project were selected for the measurement of ambient noise levels.

During the day time, the equivalent noise levels were found to vary in the range of (51.9-62.7) dB(A) while in the night time, the equivalent noise levels were observed to be varying in the range of (44.9-51.2) dB(A).

#### 4.5 Ecology

The study area is found to have a good vegetation cover due to helpful climatic conditions and good soil quality in the area. There are good number of plantation patches in the study area and dense vegetation cover around settlement areas. Burgahan R.F, Pandra P.F., Dalha P.F are situated within the study area.

There is extensive grazing land, which come under cultivation. The overall floral composition in the whole study area is quite rich.

#### 4.6 Demography and Socio-economy

The 10 km radius study area comprises of 68 villages and the Nagar Panchayat of Baloda. The study area is densely populated with the total population of 1,17,642 (as per 2011 Census). The sex ratio is about 900 females per 1000 males. The overall literacy rate is about 62.6%.

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## 5.0 ENVIRONMENTAL IMPACTS OF PROPOSED PROJECTS

### 5.1 Impacts on Air Quality

In the proposed coal washery project, there will be no process continuous point source emissions during operation. No fuel will be burnt in the process.

It may, therefore, be concluded that the setting up and operation of the proposed project will not cause any adverse impact on the ambient air quality, which is expected to remain at the existing level.

### 5.2 Impacts on Water Quality

IPL will follow “the zero wastewater discharge concept” and the entire wastewater will be recycled to the plant for process uses. As no wastewater will be discharged into any outside water body, there will be no impact on the water quality of any surface water bodies of the area.

### 5.3 Impacts of Plant Noise

Operational activities are not expected to cause any undue disturbances to the people living in the proximate areas outside the plant boundary.

Impacts of noise on workers could be minimised through the adoption of adequate protective measures in the form of (a) use of personal protective equipment (ear plugs, ear muffs etc.), (b) education and public awareness, and (c) exposure control through the rotation of work assignments in the intense noise areas.

As such, due to protection, there will not be any appreciable impact from noise due to the operation of the proposed project.

### 5.4 Impacts on Biological Environment

The surrounding area has substantial vegetation in the form of village orchards, roadside trees and agriculture. If the gaseous emission is controlled properly, there will not be significant impact. There will be sufficient plantation of trees at the plant site. All these measures, if implemented properly will ensure insignificant impact on the local vegetation from the proposed project and may improve the vegetation scenario of the area.

No wastewater will be discharged outside the plant premises. There is, therefore, no impact on the aquatic ecology of the water bodies.

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## 6.0 ENVIRONMENTAL MANAGEMENT PLAN

M/s Inspire Industries Private Limited, will develop various management activities for the Environmental Management Programme which will meet all statutory requirements and help to improve environmental quality.

In order to improve the aesthetic look of the area and enhance the land use as well as to compensate for any loss in ecology during construction, adequate plantation programmes around the project site have been planned and will be adopted. Development of green belt will include plantation of trees along boundary of the factory, roads, raw material yard and other available spaces. Over 33% of total area of factory will be covered under green cover.

A detailed monitoring for different environmental parameters will be carried out as per direction of Chhattisgarh Environment Conservation Board. An environmental management group will be established to implement the management plan.