

Clarifications and additional information on the observations of the EAC[TC]

The TOR proposal of Aryan Ispat & Power Pvt. Ltd. (AIPPL) to set up a 5 MTPA commercial coal washery in an area of 31.26 acres was considered by the EAC (TC) on 12th / 13th May, 2016 meeting. Clarifications and additional information on the observations of the Committee are given below:

EAC [TC] Observations & Advice	Clarifications & Additional Information
<p>Observations :</p> <p>1) The three identified sites are close to each other, in the same area and close to Hirakud reservoir.</p>	<p>Three alternate sites at Gurupali, Phulchanger & Bomaloi villages were identified for setting up a 5 MTPA coal washery. Their details were presented before the EAC in its 11-13th May, 2016 meeting. Considering the observations of the Committee, two additional sites at Suldia and Singharpur villages in Jharsuguda have been examined. Details of all the sites are given in Annexure – I.</p> <p>Out of the total five sites, three are located in Sambalpur and two in Jharsuguda District. The site within the integrated steel plant at village Bomaloi has been selected for the proposed washery. This site has the following advantages:</p> <ul style="list-style-type: none"> • Proposed washery site is within the existing steel plant premises so no additional land is to be acquired for the project. Surplus power and water is available for the proposed washery. Cutting of trees is not involved. No approach road is to be constructed. • Private Freight Terminal [PFT] – own railway siding is about 100 m. • Adequate required logistic support is available for the project. • Himgir and Belpahar railway sidings are being used for dispatch of coal from MCL Mines - Basundhara & Kulda, Belpahar, Samleswari, Lakhanpur, Lachkura, Hirakud Bundia etc. The road distance is around 12 km- 30 km. Raw coal for beneficiation at the proposed site will also follow the same transportation mode i.e. Up to Himgir and Belpahar siding ROM

	<p>Coal will be transported by road and thereafter by rail to the project site.</p> <ul style="list-style-type: none">• Road transportation of raw coal, washed coal, middling and rejects will be minimal.<ul style="list-style-type: none">• Most of the prospective clients, namely, Aditya Aluminium Ltd.[Bomaloi – 6 km], GMR Power Ltd. [Raipur – 310 km], Bhusan Steel & Power Ltd. [Dhenkanal – 198 km], ACC [Bargarh – 94 km], Hindalco [Hirakud – 38 km] are connected by rail.• The clients not connected by rail are within 3 – 19 km from the project site - 3 km to 19 km. They will be supplied beneficiated coal by road.• The plant is about 2.5 km from the Hirakud reservoir.• Three online continuous AAQ monitoring systems functioning at the steel for PM₁₀, PM_{2.5}, SO₂, NO, NO₂, NO_x and CO would help in overall environmental performance check on daily basis. <p>The site selection analysis is given in Annexure – II.</p>
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<p>2) Raw coal, washed coal, middling and rejects transportation is proposed by road and rail both.</p>	<p>The raw coal will be sourced on behalf of the clients from the MCL mines, Basundhara & Kulda, Samleswari, Belpahar, Lakhanpur etc located within 37 km -110 km from the identified site.</p> <p>The nearest railway siding from the Basundhara & Kulda mines is Himgir about 30 km by road. For the other mines, Belpahar railway siding is used, which is about 12 km - 25 km. ROM coal from these mines for dispatch to the clients by rail is first transported by road to these railway sidings even today. There will not be any additional road traffic for bringing ROM coal from MCL mines to the proposed washery site through the railway sidings at Belpahar and Himgir as PFT already exists near the proposed coal washery site. The clients connected by rail will receive washed coal, middling and rejects by rail. The nearby clients like Viraj Steel & Power [3 km], SMC Power [15 km], Action Ispat & Power Limited [19 km] not connected by rail, will receive beneficiated coal by road from the washery.</p>
<p>3) The critically polluted area (Jharsuguda – Ib Valley) is about 10 km from the proposed site.</p>	<p>In Odisha, there are three industrial clusters, namely, Angul-Talcher, Ib-Valley and Jharsuguda, which are considered critically polluted areas. Ib-Valley and Jharsuguda industrial areas are adjacent so considered as one.</p> <p>The proposed project site is within the integrated steel plant premises at Bomaloi village, Sambalpur District. Jharsuguda - Ib-Valley region is about 20 km from the project site.</p> <p>The State Pollution Control Board, Odisha in its final report (2010) on Action Plan for Abatement of Pollution in Ib Valley – Jharsuguda region has indicated that there is no effluent discharge from AIPPL steel plant. ESP and bag filters including online continuous ambient air quality monitoring systems for PM₁₀, PM_{2.5}, SO₂, NO, NO₂, NOx and CO; and continuous online stack emission monitoring systems have been installed. Char is used as supplementary fuel in AFBC boiler. Similarly, the other industries falling in the region have been directed to</p>

	ensure compliance with the Action Plan findings.
<p>4) Washery being a highly polluted activity, the sites selected is not considered to be appropriate as it being close to Hirakud reservoir and about 10 km from critically polluted area.</p>	<p>The Ministry of Environment, Forest and Climate Change in its report (2016) on revised classification of industry has re-categorized the coal washeries from Red to Orange category based on score of pollution index. The proposed washery is based on heavy media cyclone technology with close water circulation system. There will not be any discharge outside the plant premises. The entire process wastewater will be reused in the washing circuit.</p> <p>The Hirakud Dam Authorities were informed that AIPPL has planned to set up a 5 MTPA coal washery within the integrated steel plant premises at village Bomaloi with close water circulation system in which the entire process wastewater is recycled and reused in the coal washing circuit ensuring zero effluent discharge. The authorizes have made the following observations:</p> <ul style="list-style-type: none"> • The proposed project site is situated at an elevation of RL 200 m whereas Full Reservoir Level [FRL] of Hirakud reservoir is 192.024 m. • The plant is approximately 2.5 km from the reservoir area so flooding in the area nearby the plant region does not arise. • There is no possibility of backwater effect of the Hirakud dam entering the project area. <p>A copy of letter no. 11442 dated 01/10/2016 from the Main Dam Division, Burla on the above clarifications is attached as Annexure -III</p> <p>The proposed project site is within the integrated steel plant premises. The project area falls in Sambalpur District. In Odisha, there are three industrial clusters, namely, Angul-Talcher, Ib-Valley and Jharsuguda are considered critically polluted areas. Ib-Valley and Jharsuguda industrial areas are adjacent</p>

	<p>so considered as one. The Odisha Pollution Control Board in its final report on Action Plan for Abatement of Pollution in Ib Valley – Jharsuguda area has indicated that there is no effluent discharge from AIPPL (Bomaloi). ESP and bag filters have been provided including three continuous ambient air quality monitoring systems (CAAQMS) for PM₁₀, PM_{2.5}, SO₂, NO, NO₂, NO_x and CO. Continuous stack emission monitoring systems have been provided. Char is used as supplementary fuel in AFBC boiler. Fly ash is used for brick manufacturing and filling the low lying areas within the plant.</p> <p><u>Action plan:</u></p> <ul style="list-style-type: none"> ○ Water pollution – Develop collection and treatment facility for mineral charcoal and coal pile runoff during monsoon. ○ Air pollution – Install ESPs in DRI Kilns, bag filters in dust generating points and pneumatic dust handling system; online stack monitoring system with real time display system for Particulate Matter control; and real time AAQ monitoring for SPM, RPM, SO₂, NO_x.
<p>Advice :</p> <ol style="list-style-type: none"> 1. The site should be - <ul style="list-style-type: none"> • far away from the reservoir • close to mine requiring minimal road transportation 2. Identify some alternate site considering the above observations. 	<p>Considering the observations and guidelines provided by the Hon'ble Committee, five locations have been examined for the proposed washery. The site for the proposed washery at Bomaloi has been selected keeping in view the various environmental considerations which include minimal road transportation, 100% ROM coal to the washery from railway sidings at Himgir and Belpahar, and more than 70% transportation of washed coal, middling and rejects from the washery to the clients by rail through railway siding existing within 100m. The salient features of the site and analysis are given in Annexure – I & II.</p>

ANNEXURE - I

Analysis of Alternative Sites

Parameters	Site – I (Gurupali)	Site – II (Phulchanger)	Site – III (Bomaloi)	Site – IV (Suldia)	Site – V (Singharpur)
Latitude	21° 42' 31.2" N to 21° 42' 40.5" N	21° 43' 7.4" N to 21° 43' 18.8" N	21° 42' 39.1" N to 21° 42' 49.6" N	20° 14' 42.4" N	20° 02' 27.2" N
Longitude	84° 02' 21.1" E to 84° 02' 37.5" E	84° 02' 17.2" E to 84° 02' 34" E	84° 02' 25.2" E to 84° 02' 43.9" E	85° 54' 46.3" E	86° 02' 01.8" E
Village in the Vicinity	Gurupali village is less than 500 m	Phulchanger village is 200 m	Within the AIPPL's integrated steel plant premises at village Bomaloi	No village in the vicinity	No village in the vicinity
Distance from nearest city/town	Jharsuguda, 15.6 km, North	Jharsuguda, 14.7 km, North	Jharsuguda, 15 km, North	Belpahar – 25 km East	Belpahar – 30 km East
Elevation of the site, above MSL	200 m	200 m	200 m	218 m	208 m
Land pattern	Barren land	Barren land	The land fairly flat land under industrial use	Barren Government land	Barren Government land
Land availability (in acres)	Total available land is approx. 30 acres	Total available land is approx. 35 acres	Available land is approx. 31.26 acres	Available land is approx. 81.67 acres	Available land is approx. 25.88 acres, not adequate
Private / Government	Govt. Land: 30 acres	Govt. Land: 35 acres	31.26 acres vacant land within the steel plant - industrial category	Govt. Land	Govt. Land
Agriculture land within 1km	Less than 500 m from the site	About 1 km from the site	None	None	None
Barren	Barren : 30 acres	Barren : 35 acres	About 31.26 acres of vacant land under industrial category	Barren : 81.67 acres	Barren : 25.88 acres
Single crop	Single Crop : Nil	Single Crop : Nil		Single Crop : Nil	Single Crop : Nil
Double crop	Double Crop : Nil	Double Crop : Nil		Double Crop : Nil	Double Crop : Nil
Forest land	Forest Land : Nil	Forest Land : Nil		Forest Land : Nil	Forest Land : Nil

Parameters	Site – I (Gurupali)	Site – II (Phulchanger)	Site – III (Bomaloi)	Site – IV (Suldia)	Site – V (Singharpur)
House holds	No Households	No Households	No Households	No Households	No Households
Water body and source of water	Nalla is adjacent Requires laying of a pipeline for supply of water from the rain water harvesting reservoir at the steel plant.	Nalla is about 50 m, which joins the back water of Hirakud reservoir Requires laying of a pipeline for supply of water from the rain water harvesting reservoir at the steel plant.	Existing steel plant of AIPPL has surplus water [Rain water harvesting reservoirs] to meet the requirement of the proposed project.	Hirakud Reservoir is about 8-10 km. Requires laying of a pipeline for pumping water from Hirakud reservoir and construction of booster stations.	Hirakud Reservoir is about 6-8 km. Requires laying of a pipeline for pumping water from Hirakud reservoir and construction of booster stations.
Road connectivity	150 m approach road construction with a bridge over a nalla is needed SH-10 is about 1 km, W	Not possible to construct approach road SH-10 is about 1.2 km, W	Well road connectivity from AIPPL's integrated steel plant area SH-10 is about 0.7 km, W	Approximately 9 km from Jharsuguda – Raigarh NH-200 Requires construction of about 2 km approach road and widening & strengthening of existing road to connect site to the NH.	Approximately 9 km from Jharsuguda – Raigarh NH-200. Requires construction of about 2 km approach road and widening & strengthening of existing road to connect site to the NH

Parameters	Site – I (Gurupali)	Site – II (Phulchanger)	Site – III (Bomaloi)	Site – IV (Suldia)	Site – V (Singharpur)
Rail connectivity	Railway siding is about 1 km Lapanga Railway station is about 2.3 km, N	Railway siding is 1 km Lapanga Railway station is about 1.4 km, N	The railway siding of AIPPL is about 100 m away from the proposed location. Lapanga Railway station is about 2.0 km, N	The existing railway sidings at Belpahar and Himgir are approx. 25 km and 30 km by road.	Belpahar Railway siding is 30 km and Himgir Railway siding is 30-35 km by road respectively.
Religious, Archeological Monuments	None	None	None	None	None
Forests	Gurupali RF is 200 m away	Ghichamura RF is about 4 km	Ghichamura RF is about 5 km	Forest belt is 5 km away from the proposed site	No Forest belt
National parks & Wildlife sanctuaries	None within 15 km	None within 15 km	None within 15 km	None within 15 km	None within 15 km

Alternative Sites Analysis: The Site-1, Site-2, Site-4 and Site-5 have not been preferred for setting up the proposed washery because –

The site-1 is close to reserved forest, nalla and an agriculture land. Involves construction of a bridge and an approach road and laying of water supply pipeline with booster pumping stations;

The site-2 is close to human habitation and a nalla. It cannot be connected to the main stream of road and rail networks as it is blocked by a colony on one side and steel plant on the other side. Like site -1, this site also needs laying of water supply pipeline with booster pumping stations. These two sites are about 1 km from the railway siding as such would involve additional road transportation;

The site-4 is a barren Govt. land, approx. 4 km from the Lakhanpur OC mine. The site requires laying of pipeline for pumping water from Hirakud Reservoir and construction of booster stations. Mine water is not available. There is no possibility of construction of railway siding. The existing railway sidings at Belpahar and Himgir are approx. 25 km and 30 km respectively by road. MCL mines also use these sidings. Though the site is close to one MCL mine, the other mines are approx. 50 km by road. Jharsuguda – Raigarh NH-200 is approx. 9 km from the site. The site partly falls under coal bearing region. Requires construction of about 2 km approach road and widening & strengthening of existing road to connect site to the NH-200; and

The site-5 is a barren Govt. land, approx. 5 km from the Lakhanpur OC mine. Adequate land is not available. The site requires laying of pipeline for pumping water from Hirakud reservoir and construction of booster stations. Mine water is not available. There is no possibility of construction of railway siding. The existing railway sidings at Belpahar and Himgir are approx. 30 km and 30 - 35 km respectively by road. MCL mines also use these sidings. Though the site is close to one MCL mine, the other mines are approx. 40 km by road. Jharsuguda – Raigarh NH-200 is approx. 9 km from the site. Requires construction of about 2 km approach road and widening & strengthening of existing road to connect site to the NH-200. The site partly falls under coal bearing region. The transportation of raw coal from the mines to the railway siding will be much more for the Site - 4 and Site - 5 as compared to the other sites. The end users of beneficiated coal, not connected by rail, are also far away from these two sites [4 & 5] as compared to the other sites.

The site-3 at Bomaloi has been preferred over the other four sites because it has major advantage of an existing railway siding about 100 m within the AIPPL's integrated steel plant premises at village Bomaloi, Tehsil - Rengali, District Sambalpur, Odisha. The land, fairly flat, is under industrial use and under possession of the company. Felling / cutting of trees is not required. There is no agriculture land within 1km of the site. Expect establishment of internal road connectivity, the site does not require any approach road construction. No water body / nallah or public road passes through or close to the washery site. The steel plant has surplus power & water [Rain water harvesting reservoirs] to meet the requirement of the proposed project. Laying of water supply pipeline and power line is far easier than the other sites located away from the steel plant. End users of washed coal, middling & rejects, namely, Aditya Aluminium Ltd.[Bomaloi – 6 km], GMR Power Ltd. [Raipur – 310 km], Bhusan Steel & Power Ltd. [Dhenkanal – 198 km], ACC [Bargarh – 94 km], Hindalco [Hirakud – 38 km] are all connected by

rail. The Clients not connected by rail are SMC Power Ltd. [Jharsuguda – 15 km], Viraj steel & Power Ltd. [Gurupali – 3 km], and Action Ispat & Power Ltd. [Jharsuguda – 19 km]. These clients are located within 3 – 19 km from the site.

AIPPL has installed, within the steel plant premises, three online continuous ambient air quality monitoring station and data so generated is transmitted to the Odisha State Pollution Control Board and the Central Pollution Control Board servers on continuous basis through GPRS network. Besides, the available logistic support, this location is the best to have a proper check on environment performance of the proposed coal washery. Adequate and effective environmental protection measures including plantation will be taken to ensure compliance with the environmental regulations.

OFFICE OF THE EXECUTIVE ENGINEER, MAIN DAMS DIVISION, BURLA

Lr. No-

11442

Dt.

1/10/16

To

M/S Aryan Ispat & Power Private Limited,
Vill-Bomaloi, Tehsil- Rengali,
Dist-Sambalpur-768212

Sub:-

Setting up a 5 MTPA coal washery within the premises of integrated steel plant at village Bomaloi, District - Sambalpur, Odisha

Ref:-


AIPPL/HR/UMB/06-2016/375

Sir,

In inviting reference to the cited subject it is to intimate You that:-

- 1) The proposed Project is situated at an elevation of RL at 200Mtr which is much higher FRL of Hirakud reservoir i.e. 192.024mtr.
- 2) Plant is situated approximately 2.5km from Hirakud Reservoir area. So, flooding situation in the area near by either to the plant or other industry in the region does not arise.
- 3) There is no possibility of back water effect of Hirakud Dam entering the project area.
- 4) The project authorities should ensure zero effluent discharge to the reservoir for avoiding any water pollution.


Yours faithfully,


Executive Engineer,
Main Dam Division, Burla.

Memo No.

/Date:-


Copy submitted to the Chief Engineer & Basin Manager, Upper Mahanadi Basin, Burla for favour of kind information and necessary action.


Executive Engineer,
Main Dam Division,

Memo No.

/Date:-


Copy submitted to the Superintending Engineer, Hirakud Dam Circle, Burla for favour of kind information and necessary action.


Executive Engineer,
Main Dam Division, Burla.

Memo No.

/Date:-

Copy to the Asst. Executive Engineer, Hydrology Sub-Division, Burla for information and necessary action with reference to his letter No. 1295 (WE) dtd. 26.07.2016.


Executive Engineer,
Main Dam Division, Burla.