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To
Bureau veritas certification (india) p ltd
Marwah centre
Andheri (E)- Mumbai-72

Dear sirs,

Subject:- Clarification regarding the impact of Kiln conditions on WHRB Power plant.

As per telephonic discussion with your expert we wish to submit the confirmation of the following fact regarding the impact of Sponge Iron kilns on WHRB .

01. The Sponge Iron Rotary Kiln Technology is given by us and the supporting technical input data has been provided by us for designing the WHRB.
02. By installing WHRB in line along with kiln, there will be draft variation which results variation in kiln standard parameters like air volume, kiln pressures etc. due to additional ducts of WHRB.
03. The efficiency of the boiler depends upon the temperatures maintained in the After Burning Chamber (ABC) of the kiln. The temperature available in the ABC generally depends upon the quality of the raw materials for the sponge iron production.
04. There is some dust concentration in the flue gases, which travels to boiler from kiln through ABC. This dust settles on WHRB tubes and efficiency of the boiler comes down. To increase the efficiency of the boiler time to time, these tubes are to be cleaned frequently with generated steam. The process of cleaning of these tubes is called "SOOT BLOWING". While soot blowing, there is lot disturbance in the kiln operations and results variation in kiln pressures, temperatures in the kiln , temperatures in ABC and also reduces the power generation. Also this leads to form the coatings in the ABC and early shut down of kiln. Regular soot blowing is necessary in every shift basis.
05. Variation in ABC temperatures leads to failure of boiler tubes and Accessories due to thermal shocks.



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06. Quality of raw materials used to produce Sponge Iron plays an important role in producing amount of flue gas volume and dust composition. It is not possible to design a kiln to over come the above problems due to uncertainty in the raw material availability.
07. In view of the above , after installing WHRB power it is necessary to deploy highly experienced and more skilled man power in both sponge iron production and WHRB power generation to minimize the problems.
08. It is our personal opinion that the company must take very-very critical care in operation of the WHRB plant otherwise it may prove to be loss making proposition than generating any profit
09. It is due to such reasons a large number of small capacity plant are reluctant to set up any WHRB power plant with their sponge iron kilns.
10. The waste heat generated from coke oven or blast furnaces have different set of conditions thus the variation & fluctuations of operation are not as much as in case of a sponge iron plant

We hope this clarifies your queries related to the project of sponge iron plant with WHRB power generation

Thanking you

Yours sincerely
M/s. Popuri Engineering & Consultancy Services


Authorized signature
N. Krishna- Vice President