Mr. Hans Jurgen Stehr
Chair, CDM Executive Board
UNFCCC Secretariat
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July 18th 2007

Re Request for review of the request for registration for the CDM project activity "Power generation from waste heat at NSIL" (Ref. no. 0997)

Dear Mr. Stehr,

SGS has been informed that the request for registration for the CDM project activity "Power generation from wasted heat at NSIL" (Ref. no. 0997) is under consideration for review because three requests for review have been received from members of the Board.

The requests for review are based on the same reasons outlined below. SGS would like to provide a response to the issue raised by the request for review:

Request for clarification to the DOE/PP:

1. *Many of the technological barriers listed appear to be technological problems related to the operation of the kilns rather than the implementation of the project activity. Further, page 7 of the PDD states that, "The technology for the boilers and turbines is well established and available in India and the project activity does not involve any transfer of technology and no additional training of personnel is required for operating the boilers and turbines." Further justification of the technological barriers and how the CDM will overcome these barriers is required.*

SGS Reply:
The waste heat recovery from the sponge iron kiln is not the common practice due to numbers of barriers which makes the project activity unviable without CDM benefits. Although the technology is available in India, the penetration of technology is limited and hence the similar plants are either considering CDM benefits or prefer to purchase electricity from the grid or to install a coal-based captive power plant. The barrier is more to the small kilns below than 100 TPD where the WHR projects can not be thought of without CDM benefits. The project activity has faced technological barriers followed by barriers due to prevailing practice. As explained in section 3.2 of the validation report, the technological barrier was the major barrier to the project activity i.e. to harness the potential of power generation from the waste gases although these are dirty, corrosive and difficult to handle due to frequent rupture of boiler tubes and hence frequent maintenance is required. The skilled and trained labour to operate and maintain the technology is not available which leads to an unacceptably high risk of equipment malfunctioning and frequent shutdowns which affects the plant production too in case of standalone plants like the project activity is. The risk of technological failure in WHR project is more than the other widely available proven technologies like coal based power plants. The technology used in the proposed project activity is not widely observed in Chhattisgarh state of India. At the time of start of the project activity there were 147 coal-based sponge iron plants with 3 gas-based plants in

the country, out of that 38 coal-based sponge iron plants were in Chhattisgarh state however only 8 plants had their own captive power plants and others were purchasing electricity from the grid as per the Joint plant committee report on survey of Indian sponge iron industries. The same was submitted with request for registration as appendix 1 to the PDD. Out of 8 captive power plants including NSIL, the NSIL (1) and HEG (2) were having small 100 TPD kilns which are more prone to frequent shut downs but HEG was involved in power sectors and supplies power to the grid. The JSPL (3) was not of similar scale due to its very high sponge iron plant capacity although they also have one registered CDM project activity 0351. Prakash industries (4) is a cogeneration plant and not a similar activity. The others GPIL (5), Monnet (6), Raipur alloys (7) and Vandana Global (8) have sought CDM benefits and three of these are already registered. This substantiates the fact of low penetration of the technology in the region due to the risk of technology failure. The CDM benefits thus help PP in overcoming the barriers and promote sponge iron plant owner to invest in such projects.

2. *Prior to the project activity power was sourced from JSPL (CDM project activity (0351)). Further justification is required that the methodology is applicable and applied correctly as it appears that the project activity is displacing power from JSPL rather than the grid.*

SGS Reply:
As explained in the section 3.2 of the project activity, the project activity power was sourced from JSPL in the baseline because this was the economical option for both of the plants. However, the JSPL had sufficient power capacity to meet the NSIL requirement as well as in house requirement and export to the grid. The same was verified with JSPL power purchase agreement with electricity board attached as Annex 1 & 2. Hence, the electrical energy that could have been diverted to the NSIL in absence of project activity is being fed to the grid. Therefore, the project activity replaces the grid and meets its in house requirements with the project activity. Thus the grid was selected as the baseline because the grid was actually replaced indirectly and was more conservative in comparison to the emission factor of the JSPL plant which consists of fossil fuel dominated power plants in its boundary. The JSPL power plant report shows the power generated in JSPL was around 80% from the coal based captive power plant. The report of JSPL power plant is attached as Annex 3. Thus the western region grid emission factor is more conservative than in-house coal based power plants of JSPL.

3. *In determining the baseline, the continuation of importing power from JSPL has not been identified as an alternative. This alternative should have been assessed separately from importing power from the grid.*

SGS Reply:
Please refer the alternative 2 at page 11 in the PDD, the continuation of importing power from JSPL was identified the best alternative. Since JSPL was able to meet the NSIL power requirement as well as that had sufficient power to supply to the grid, any power diverted to NSIL would have reduced the power supply from JSPL to the grid. Hence, anyhow the power being generated by the project activity would have been generated by the grid connected power plants in absence of project activity therefore the grid is the baseline of this project activity.

4. *The monitoring plan does not account for electricity generation that may be based on fossil fuels, rather than from only waste heat recovery. The monitoring plan should ensure that additional heat gain based on fossil fuels before entering the waste heat recovery boilers is accounted for.*

SGS Reply:
There is no auxiliary fuel being fired as auxiliary fossil fuel. The source is a waste gas and the project activity is to extract the heating potential from the gases to generate steam in the boiler which subsequently generates power with the help of turbo-generator.

We apologize if the initial validation report has been unclear and hope that this letter and the attached information address the concerns of the members of the Board.

Sanjeev Kumar (0091 9871794628) will be the contact person for the review process and is available to address questions from the Board during the consideration of the review in case the Executive Board wishes.

Yours sincerely

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Annex 1 Power purchase agreement – 1 (1999)
Annex 2 Power purchase agreement – 2 (2002)
Annex 3 JSPL power production report for last three years