

# SATPARA DAM VISIT REPORT

## Verification of Project Works Completed up to December 2011



GTIP PROJECT

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### AEAI

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## 1. PURPOSE of VISIT

In order to monitor progress a field visit to the Satpara Dam multipurpose hydropower project was conducted from Dec 8 - 10, 2011 by Senior Energy Expert from EP Project. The purpose of the visit was to verify the completion of works and current status on the main dam, power houses 1 & 2, irrigation system and power houses 3 & 4. In addition to this, the implementation status of EMMP and the seepage condition at the dam was also examined. The field visit was important as it relates to expediting the completion of project under USAID funding.

## 2. STATUS of WORKS COMPLETED

For the purpose of verifying works completed on the Satpara dam project, Saleem Paracha from AEAI inspected the project on site for physical verification of completed works. Following is the brief summary of project works completed up to Dec 9, 2011;

- |  |                |
|--|----------------|
| 1. Civil Works for Dam and Powerhouse 1 & 2:         | 100 % complete |
| 2. Irrigation System;                                | 99 % complete  |
| 3. Civil, Electrical and Mechanical Works for 3 & 4; | 51 % complete  |
| 4. Consulting Services for Satpara Project;          | 88 % complete  |

Civil works on the main dam and powerhouse # 1 & 2 were completed on July 29, 2011 as per schedule specified in the Activity Agreement. Remaining works including construction of the roads, lighting arrangements and railings at the dam site were completed during the month of July. Construction activities on the irrigation system were 99 % complete and the remaining works include completion of head regulators and some stone masonry works on left bank canal. The testing of both right and left canals was carried out on Dec 9 by releasing water in the canals. The right bank canal testing was successful, however left bank canal was unsuccessful due to the uncompleted portions of canal ( about 400 ft ) and damage to a temporary plug releasing all water in the middle of canal. Also head regulators on both canals were not yet complete. WAPDA was requested to complete the outstanding works as jointly agreed at site to enable AEAI to verify the outstanding payments of phase 1.

WAPDA awarded civil works contract for unit # 3 & 4 to M/s Descon as a variation order to the existing contract and the excavation works started in early April, 2011. The contract for E & M works was awarded to M/s Andritz Technologies, China on June 9, 2011 with a completion period of 21 months. The overall completion of Units 3 & 4 is 51 % as of Dec 9, 2011.

Powerhouse # 1 & 2 were generating 6 MW due to low reservoir level and shutdown of unit # 2 ( 4 MW ) of powerhouse # 2 due to non availability of spare parts for the governors from last week. WAPDA was again reminded to expedite and repair the unit, as soon as possible.

In accordance with the Activity Agreement for Satpara Project, WAPDA will enter into a Power Purchase Agreement with Gilgit-Baltistan PWD that would recover WAPDA's costs including O&M for a continued sustainable Satpara Project operation; however, WAPDA has not yet signed a Power Purchase Agreement with the local distribution company and delivering free power to PWD. Therefore, WAPDA does not have sufficient funds to purchase spare parts for the sustainability of the power plants operations. WAPDA was requested to address this issue immediately and advise USAID/ AEAI for any assistance required to have sustainable operation of the power houses and project.

### **3. SEEPAGE CONDITION at the DAM**

It was noticed that the reservoir level was depleting due to low inflow of water. On Dec 9, 2011 the total seepage recorded downstream of the dam by WAPDA was 30 cusecs. For more accurate and precise measurements WAPDA recently installed improved instruments which are recording total seepage from the dam. WAPDA filled the sink holes and depressions in the reservoir area (developed last year) in accordance with the recommendations of the Dam Safety Experts.

### **4. IMPLEMENTATION OF EMMP**

WAPDA Satpara has appointed EHS Officer and EHS Engineer to maintain day to day coordination and ensure that the EMMP is adequately implemented. They have also prepared Check List for the implementation of the Work Plan.

The site visit photographs are in the AEAI Shared Folder.

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