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VISIT REPORT

VERIFICATION OF PROJECT WORKS COMPLETED
UP TO NOVEMBER 17, 2012 AT TARBELA HYDRO POWER
PLANT



November 2012

This program is made possible by the support of the American people through the United States Agency for International Development (USAID)

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Contract No: AID-EPP-I-00-03-00004

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I. PURPOSE of VISIT

A visit to Tarbela Hydro Power Plant was conducted on November 17, 2012 by AEAI engineers to monitor progress of the Repair and Rehabilitation of Tarbela Power Plant. The purpose of the visit was to (1) expedite the completion of rehabilitation works under the USAID funding; (2) verify WAPDA invoice for digital governors; (3) discuss the trainings requirement of the WAPDA staff.

2. STATUS of WORKS in PROGRESS

On November 17, 2012 Tarbela Power Station's total maximum generation was 2178 MW at a reservoir level of 1498 ft. After the installation of new Class F windings under the FARA, Units #1, 3 and 4 are capable of generating 195 MW at full reservoir level, however at the time of visit these were generating 118 MW, 141 MW and 139 MW respectively. As of today, 128 MW has been added under the FARA rehabilitation program.

Following is the brief summary of the progress:

1. Unit # 4 winding was replaced with new class F winding in May 2011. At the time of visit the unit was generating 118 MW and winding temperatures were under controlled limits.
2. Unit # 1 winding was replaced with new Class F winding in Feb 2012. At the time of visit the unit was generating 141 MW and winding temperatures were under controlled limits.
3. Unit # 3 winding was replaced with new Class F winding in May 2012. At the time of visit the unit was generating 139 MW and winding temperatures were under controlled limits. Furthermore, WAPDA is finalizing the purchase order for the procurement of one third winding spares from Marubeni Corporation, Japan. WAPDA was requested to expedite the process.
4. New Station Drainage Pumps and Unwatering Pumps are installed in the Drainage and Unwatering Sump. WAPDA has placed purchase order for the Tank dewatering pumps of smaller size with a delivery period of 12 weeks.
5. The manufacturing of Digital Governors completed at GE, USA. Two WAPDA engineers inspected the Governors at GE Works in July 2012 and after satisfactory inspection equipment was released for shipment. The new Governors arrived at Karachi port in early November and are expected at Tarbela by end November. Depending on unit shut down approval, the installation of new Governors to commence during the low flow season in December 2012 and is scheduled to complete by June 2013 on all ten units. During the visit the documents required to process the 90% claim of digital governors were checked and found that Insurance certificate was missing. WAPDA will provide the Insurance Certificate within this week for EPP to certify and process the claim of \$2.7 million.
6. The procurement of the SCADA system has been delayed due to technical negotiations with ABB. The case is with WAPDA Central Contract Cell for adjudication. WAPDA was requested to expedite the procurement.

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3. Visit Photographs



Figure 1: Plaque at Tarbela Power Plant



Figure 2: Discussion in Control Room about Performance of Replaced Windings at Unit 1, 3 & 4

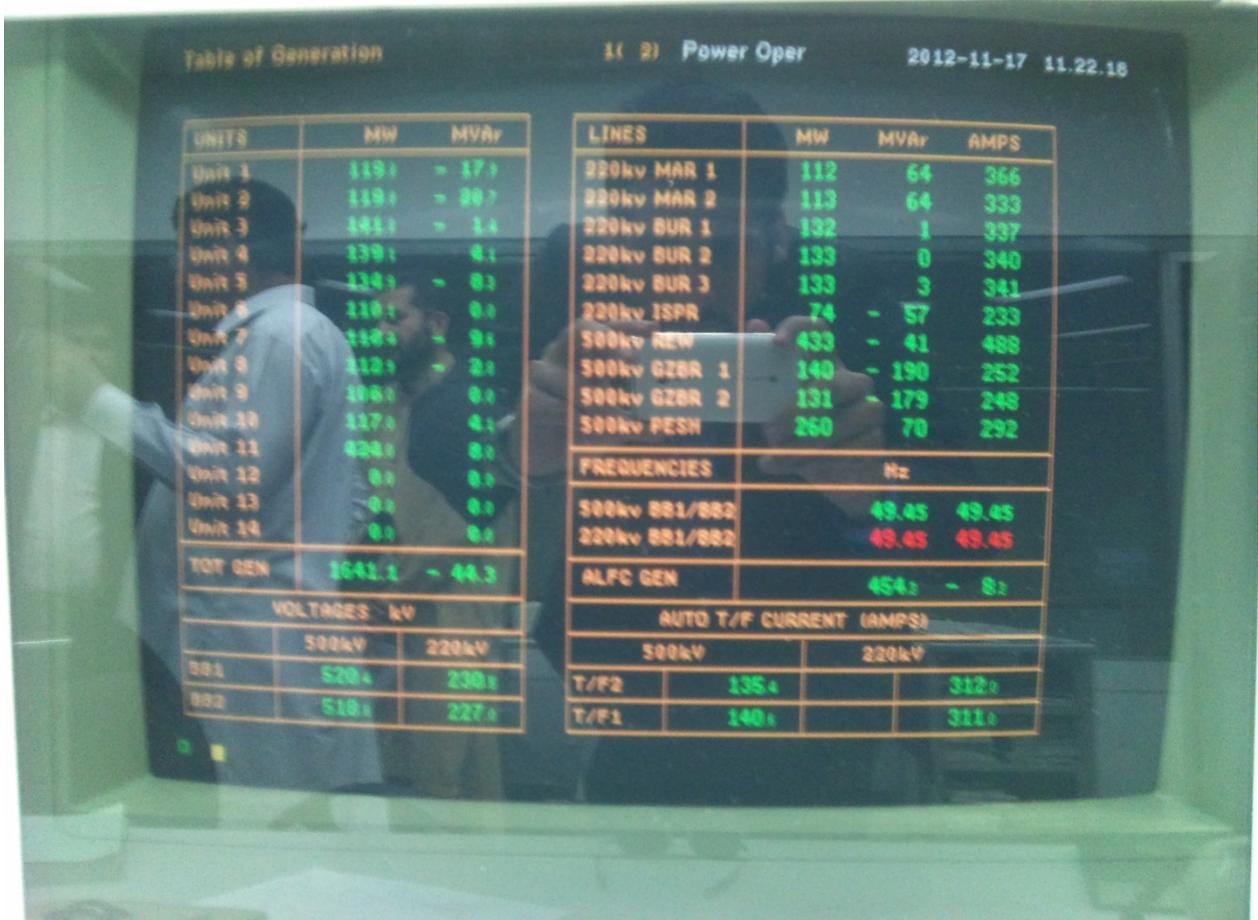


Figure 3: Computer in Control Room Displaying the MW Generation from All Units



Figure 4: Checking the MW Generation of All Units and the Windings Temperature

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