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TRIP REPORT GUDDU THERMAL POWER STATION

OCTOBER 14 – 17, 2014

November 2014

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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GUDDU THERMAL POWER STATION

OCTOBER 14 – 17, 2014

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

Order No: AID-391-TO-12-00002

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GUDDU THERMAL POWER STATION TRIP REPORT

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EPP's monitoring and evaluation team conducted a field visit to Guddu Power Generation Company Limited (GPGCL) on October 15th and 16th, 2014 to conduct the focus group discussions with the Operations and Maintenance training participants trained this year between March – June 2014. All the training participants were given an equal opportunity to state their individual training experience, learnings, and challenges they have faced during the completion of their respective assignments. In GPGCL, EPP successfully met 17 trainees to track the implementation and major accomplishments during the assignment completion phase.

Participants:

First Name	Last Name	Job Title	Gender
Liaqat Ali	Memon	Additional Manager	Male
Syed Faisal	Ali	Junior Engineer	Male
Fazal	Rabbi	Assistant Manager Chemical	Male
Javed	Fazal	Deputy Manager	Male
Mohammad	Momin	Senior Manager/DY Manager	Male
Muhammad Asif	Siddiqui	Assistant Manager	Male
Tanzil	Rahim	Deputy Manager (Mech. II)	Male
Kazi Basheer	Ali Karejo	Additional Manager	Male
Aijaz Ahmed	Khoso	Junior Engineer	Male
Munawar Ali	Mangi	Deputy Manager	Male
Maouladad	Solangi	Additional Manager	Male
Muhammad	Zahid	Deputy Manager(Electrical)	Male
Sohail Ahmed	Khan	Deputy Manager	Male
Ashfaq Ali	Dasti	Junior Engineer	Male
Gul	Sher	Deputy Manager	Male
S .Faique	Hussain Shah	Deputy Manager	Male
Khalid Hussain	Dashti	AM Operations	Male

Day I (15th October, 2014)

EPP Cross Cutting Activities Coordinator Ms. Asma Usmani and Cross Cutting Activities Assistant Ms. Rabia Abbasi travelled to Guddu from Sukkur on 14th October to conduct the focus group discussion for O&M training participants. The first day of discussion held on 15th October, 2014 at Guddu Power Generation Company Limited (GPGCL). Participants were asked few questions regarding O&M training and their responses were scattered into three different categories.

- 1) Skills learned and Implementation
- 2) Challenges
- 3) Suggestions

Skills learned and Implementation:

In general, Participants have had good opinions regarding O&M training. They said that the training has given them encouragement to resolve problems and it has broadened their capacity to avoid issues, they wrote:

“The O&M training encouraged to eliminate even small loses as these become huge amount in terms of money over the period of time. The course also enhanced our capacity to carry out predictive, preventive maintenance to avoid the damages of equipment.”

“The training manuals, lectures and discussions held during the training course, I am now able to observe all the auxiliaries / fittings / pipelines / valves at site in coordination with operation as well as maintenance engineers. The O&M training helped to resolve all the problems belongs to steam turbine condenser and bring generating units quickly”

Challenges:

Respondents highlighted few challenges that are being faced by them in their respective power plant, they shared some following challenges experienced by them, they said

“The non-induction of technical manpower, the GPCL is unable to deal with any sort of losses due to which the combustion air flow to burners increased and amperes of I.D fan motors dropped”

“The biggest challenge is to overhauling unit G-13, which tripped on high vibration last year. Several damages have been observed including condenser tubes. A lot of time & Countless efforts have been carried out for its MOH. Hopefully MOH will be carried out by Siemens, Germany where all the damaged equipment will be replaced by new ones Including all condenser tubes and seals”

“USAID is implementing an ERP system in CPGCL which is without the CMMS module that is essential requirement to improve plant maintenance culture. There is a dire need of networking based planning software when the plant is automatically compiled in ERP. CMMS based network would further strengthen work efficiency of higher Ups e.g General Manager and Chief Executive Officer”

Suggestions:

The following range of suggestions was provided by the participants to improve the future trainings.

“The process of further trainings and assignments be continued for the betterment of the power plant.”

“The O&M training was mostly focused on operational activities of the Power Plant. Electrical equipment maintenance was neglected. Moreover, visits to Latest technology based state of the art plants will also increase our knowledge and vision”

“We required a networked based planning software real time integrated with the ERP and CMMS module, so that when-ever any GENCO II Engineer plan, schedule and update any maintenance activity of plant, the MIS department must should capable of generating a compiled report for the management”

Day 2 (16th October, 2014)

Ms. Asma Usmani-Cross Cutting Activities Coordinator and Ms. Rabia Abbasi - Cross Cutting Activities Assistant visited Guddu Thermal Power Plant on 16th October to lead the discussion with the remaining participants. Similarly to Day 1, the participants were asked to give their feedbacks based on the following categories.

- 1) Skills learned and Implementation
- 2) Challenges
- 3) Suggestions

Skills learned and Implementation:

According to the participant’s feedback, various techniques and skills, such as, minimization of heat rate, plant measurement, industrial standards, fuel consumption etc. were learned by them during the O&M training. They shared:

“The O&M training has widely explained the various industrial standards obscured, locally and internationally in power houses, prior to the training now heat rate is also taken into consideration for generation of unit.”

“O&M training has long term benefits that cannot/ may not be observed instantly, However being at lower ladder at organizational hierarchy, we make it some that all techniques all used, which may be applicable, to reduce fuel cost improve heat rate and minimize the loses, at the beginning for my assignment first aid kit was provided to case in case of any emergency”

“O&M training has prepared us for operation of plants on commercial basis. For example: this training has provided the awareness for heat rate of any unit because major portion of expenses is fuel costs. We got awareness of security too”

“Training gave me confidence on the position where I have been working. I have learnt more about safety, human resources & quality of workings (work)”

“O&M training has improved power plant measurement and management fuel; I feel a positive change in my personality and management style after this training”

“We are thankful to the USAID and people of America who provided us this precious opportunity to understand the operation of plant on commercial basis as per SOP Standard of Industrial Organization of Developed Countries. The O&M training have covered all aspects of Industrial Standards”

As it was the aim of training that the participants practically apply those knowledge and skills which were taught to them during O&M training, Participants shared that the skills and knowledge acquired from the O&M training were implemented at their workplace. They shared:

“One thing that I have applied is friendly environment with subordinates and workers. I have gained experience that staff is working with interest. Example is that OS 415MW plant is under S/Down, I have engaged my staff in calibration of gauges, transmitters and different switches”

“As Assistant Manager Electrical, I tried to plan, organize and lead day to day routine activities. I tried to make sure safety of personnel as well as equipment as learned from O&M training. I have designed a procurement plan which can resolve the spare requirement of my electrical section”

“After getting operation and maintenance training I am more capable and got knowledge in the area of operation of power plant”

“The steam leakages have been controlled. Also the Aux. consumption has been minimized”

“After performing O&M training, all the techniques and methods were conveyed to organization”

“Running units, some procedures have been implements according to guide line given by O&M training”

“The participants who have got O&M training are trying to implement the ideas behind the thermal power plant up to maximum possible”

“In our organization proper industrial standards are not being adopted due to some instrumental effects and political conditions but to some extent, these procedures are adopted for example smoke of fuel is exhausted enough chimneys, which are about 100m long. Condensation of gas and fuel is collected in bands, safety procedures are also adopted. After performing O&M training, safety procedures are improved according to procedures of O&M trainings”

“My organization behaviour has been changed as a result of O&M training by USAID, I have started thinking for maximization of efficiency a heat rate, I try to the best of my level to save auxiliary consumption. I suggested and instructed operation staff to keep off unit transformation of G-3to6 in off position, when machines are stand-by to save no load loses”

“Some procedures of fuel management are being implemented on G9 and G8 gas turbines according to instructions of O&M trainings and fruit full have been obtained”

Challenges:

Respondents discussed a range of challenging experiences which they felt impeded in thermal power stations.

Many of the participants highlighted the current challenges which they are facing at their power plants such as unavailability of spare equipment, lack of resources, slow and long procedure of procurement, old machines etc. They mentioned:

“Our organization is facing lot of challenges because our machines are old and this need proper and smooth operation and maintenance work which is only possible if the staff and engineers are fully trained”

“As most of the machines of TPS Guddu are under shutdown so their uncertainty is felt by everybody working at this power station”

“Everybody wants change, nobody wants to change, changing the working environment and behaviour of engineers and workers is big challenge, we have club management style which needs to be changed, change is a process not a step, it takes a time”

“Being a public sector organization there are long procurement processes and the spare shortages”

“Mostly our plants at TPS Guddu are in shutdown position due to non-availability of spares. Best practices will be implemented as plants after starting of units according to instructions of O&M training”

“Un availability of spare equipment, shortages of skilled staff, shortage of natural gas”

“Maine hindrance that faced during implementation of best O&M practice is lack of resources, by resources means that fuel either gas or oil is not available to generate electricity, spares are not available procurement process is so slow that major overhauling period of machines is skipped or overturned”

“The procedures & rules implemented or enforced by PPRA are main hindrances for procurement material”

“Union (T.U) interference with management is also main course of resistance in implementation”

Suggestions:

Participants provided some additional suggestions to be added for future training programs, they particularly suggested different training programs for other departments too as they believed that:

“Training must be for every department”

“Finance department needs training for better utilization of financial resources available”

“Procurement department is slow and has lengthy procedure to follow. Proper training for quick procurement process is required”

“Such type of trainings should be continue for all the employees of CPGCL, Guddu”

“There should be HR department training for better utilization of human resources and plan for future needs of engineers and workers for this plant including recruitment.”

“Our higher authority also needs to be trained so that they also learn best practices after that they can also help us in implementing best practices of O&M at plant.”

“Our organization does not have enough resources; we do not have skilled human resources and financial resources to improve the maintenance activities. O&M best practices can be implemented if we have proper planning for each department”

“One thing is very clear that we people are bound with decisions of our supervisors. When authority implement decision for improvements it becomes very easy for Power management to follow. The supervisors may be called for training for improvements in organization culture”

“Industrial standards topic was not been discussed as it should be on in O&M training, our organization is still lagging behind in understanding of industrial standards while working”

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