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Project Name

Eastern Creek TNG Operation and Maintenance

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The Next Generation
Eastern Creek Industrial Estate
Eastern Creek, NSW
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1 Continuous Training Programme

1.1 Introduction

The HZI-Sydney Plant Management Company's goal is to ensure a completely qualified and motivated O&M staff and workforce, using not only proper recruiting but also supplementing this with a Continuous Training and continuous improvement programme.

Initial staff recruiting and training is performed under the HZI-Sydney Plant Management Company's O&M contract during the "Mobilisation Period".

Subsequent personnel recruitment, training and development shall be the responsibility of the HZI-Sydney Plant Management Company in order to provide the productive stable workforce necessary for successful plant operation. The HZI-Sydney Plant Management Company will provide fully qualified and trained personnel plus any other such resources and subcontractors as are necessary to deliver the services and operate and maintain the facility on a day-to-day basis and carry out all necessary administration in respect of such personnel and sub-contractors. The HZI-Sydney Plant Management Company will also arrange for the continuing training and re-training of personnel in coordination with The Next Generation (Client) in all relevant disciplines and activities.

1.2 Basis: EPC Contractor's Training Concept

The HZI-Sydney Plant Management Company will base its Continuous Training Programme on the Training Concept of the EPC Contractor which will include numerous individual training blocks from the individual Original Equipment Manufacturers (OEMs). Therefore, we refer to the EPC Contractor's 15-page document "Training Concept", document number/Rev 5004283-0.2 from the HZI EPC Proposal.



The first training will be held during the mobilisation phase, which corresponds to the commissioning of the Eastern Creek TNG EfW plant. Afterwards, the various training blocks will be repeated and if necessary further expanded both to new employees but also to existing ones to refresh their professional knowledge and expertise. The programme of continuous training will also be custom tailored to the needs of each individual O&M staff member.

Interactive Training System (ITS)

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Fig. 10.1 – HZI's ITS Training System

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1.3 New Employees

Due to the natural turnover and fluctuation rate of the employees, new employees will always be hired. They, too, will receive the same training programme.

1.4 Specific Goals

The Contractor's Continuous Training Programme has three (3) specific goals:

- The continuous improvement of the knowledge and expertise of each individual member of the O&M team.
- The alignment of knowledge among the O&M staff of the same function. This is particularly valid for the shift positions.
- The implementation of lessons learned.



1.5 HZI's ITS Training System

The HZI-Sydney Plant Management Company will use HZI's proprietary e-learning Integrated Training System (ITS) for the training of its personnel. Fig. 10.1 shows two screenshots of the ITS training system.

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HZI's e-learning program ITS is designed specifically for training staff in large-scale EfW plants. The training occurs in a class room setting with an instructor or the participants can work through the program individually on their own. The learning modules are adapted to the Eastern Creek TNG EfW plant. The program combines flow diagrams, P&IDs, text, images and questions at four levels of difficulty. The participants can work through the learning program at their own pace. They can always check how far they have come with understanding the process.

The typical ITS course starts with an overview of the WtE plant systems and includes a short refresher of P&ID reading skills. Subsequently, one system after another is examined. The participants become familiar with the process, plant structure, instrumentation, control function, procedures, risks, malfunctions and maintenance. In the end they are able to explain the process in the P&ID and to identify important components on site.

1.6 Simulator Training of Operators

A training session will be conducted to train the HZI-Sydney Plant Management Company operating staff competences using HZI's newly updated dynamic Process Simulator.



The Process Simulator models the combustion process in a computerized application at speeds up to 10 times faster than real time. This allows realistic scenarios to be tested and trained in a much more efficient manner than on the real EfW plant and avoids costly upset conditions. Ten (10) pre-defined scenarios are available (e.g. start-up, shut-down, feed hopper bridging, sudden drop in waste fuel heat value, etc.).

The training will be conducted by a team consisting of an HZI trainer and an application specialist and will expand on the available knowledge of the trainees. The training will last 5 days and include two identical 2.5 day-sessions for up to 10 persons each. The successful completion of the training will be documented with a "HZI Operator Certificate" indicating the competence of the respective candidates.

In preparation of the training, HZI will configure the Simulator to reflect the Eastern Creek TNG EfW facility. This is a one-time effort that can be utilized for future training sessions.

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