

OSART Good Practices

MAINTENANCE

Procedures, Records and Histories

Temelin 1/2, Czech Republic

Mission Date; 12 Feb.-1 Mar., 2001

The development of a set of Process System Ownership and Maintenance Guidelines (PSO&MGs) represents the stored knowledge of how the plant's systems should be operated, maintained and tested. It is the intent of the plant to have this set of documents represent a legacy of knowledge that is being obtained by the System Engineers as part of ownership of their assigned systems. The content of the guidelines consists of:

- process system description functions and boundaries, including the connected and supporting process systems;
- list of important equipment including the safety categories (provides priorities);
- safety and availability requirements for the system and its equipment;
- process load characteristics, constraints and media used in the system;
- degradation mechanism, its consequences and parameters to measure them;
- system surveillances, evaluation and parameter trending;
- list of periodic maintenance, ISI, and IST;
- list of predictive maintenance and methods of use predictions, and the evaluation of operational, maintenance, testing and inspection results.

Once the entire set of PSO&MGs is developed, the set will represent collectively, the important data bases of components and requirements for such programmes as preventive maintenance, ISI, Surveillance, and outage planning.

As a result of the start-up and commissioning operation, the System Engineer is using the development of the PSO&MGs as the collection vehicle for important operating, maintenance and testing information.

The utility developed a maintenance procedure modification follow-up sheet that is used for validation of used procedures prior to their initial use. The utility is developing 4462 new procedures. The work started in June 1999 and will be accomplished at the end of 2002. At initial release of a procedure its status is considered preliminary. Prior to the first use of the procedure, the users must observe if the procedure suits the actual conditions of maintenance and offer appropriate feedback or practical experiences and recommendations. This information is documented on the Modification Follow-up Sheet that is contained in the Maintenance Procedure Writing Guideline, IP/DOC/014-C. The responsible manager of the procedure reviews the feedback and comments and updates the procedure to a certified for use status.

The benefits of this approach are that there is timely feedback of user comments; the clarifications or correcting of inaccurate information that was incorporated in the procedure at the procedure writing stage will be identified early-on in the use of the procedure; and expand the responsibilities for procedural accuracy and quality to the personnel conducting procedural implementation instead of just the procedure writers. The features of this process will aid in achieving the development and use of effective maintenance procedures.