

WPS System Operator Training Program Development Process and Log

Overview

This document describes the methodology used to revise the WPS System Operator Training Program, including the Job Task Analysis (JTA) portion. This document will also provide a log of the process.

Methodology

The WPS System Operator Training Program will be developed using a systematic approach, using the references listed below as guides.

Process

Attachment 1 details the process to be used to revise the System Operator Training Program.

Log

Attachment 2 details the progress of the System Operator Training Program revision.

References:

1. DOE Handbook *Table-Top Job Analysis*, DOE-HDBK-1076-94
2. DOE Handbook *Training Program Handbook: A Systematic Approach to Training*, DOE-HDBK-1078-94
3. NERC Standard PER-005-1, *System Operator Training*, Draft 1, September 27, 2006
4. US Department of Labor, Mine Safety and Health Administration, *Initial Job Task Analysis*,
http://www.msha.gov/interactivetraining/tasktraining/home_intro.html
5. *Guidelines for the Development of an Initial Systematic Training Program*, EPRI, Palo Alto, CA: 2005. 1009849

Attachment 1

Analysis

1. Review NERC Standard PER-005-1.
2. Review terms Duty Areas and Tasks.
3. Identify Duty Areas (Use existing System Operator Training Matrix)
4. Identify Tasks
 - a. Review existing System Operator Training Matrix
 - b. Review System Operator Job description
 - c. Review NERC generic task list
 - d. Review existing procedures, guides, policies, etc. to ensure all tasks are captured
 - e. Create task statements per Reference 2, pgs. 7-9 and Reference 2, Attachment 2
 - i. All tasks should fit under a Duty Area. If not, need another Duty Area
5. Sequence Duty Areas and Tasks
 - a. Arrange Duty Areas and Tasks in an order that a new person would learn the job.
6. Prepare and Conduct Task Survey
7. Select Tasks for Training
 - a. For each task, determine if training is required. The determination is based on the difficulty, importance, and frequency of the task.
 - i. No Training - Not every task requires training
 - ii. Train – typically initial training
 - iii. OverTrain – initial and continuing training
 - iv. Pre-train – for infrequent tasks, train just prior when the task is going to be done
8. Review existing training material.
9. Perform Task Analysis
 - a. For each task, identify the Initial Conditions, Standard for Acceptable Task Performance, References and Tools, Prerequisite Knowledge, Skills, and Abilities, and Critical Steps.

Design

10. Create Learning Objectives. What does the operator need to know?
11. Develop Training/Evaluation Standards (TES). Reference 2, Section 3.2, pg. 20-25
12. Develop Test Items. Reference 2, Section 3.3, pg. 25-26

Development

13. For each task that requires training, determine the training delivery method.
14. Develop Lesson Plans. Reference 2, Section 4, pg. 33-43.

Implementation

15. Conduct Training. Reference 2, Section 5, pg. 45-49
16. Document Training, Maintain Records, Reference 2, Section 5.3, pg. 49-50

Evaluation

17. Evaluate Training Program, Reference 2, Section 6, pg. 53-63

Attachment 2

Log

January 23 & 24, 2007

Three System Operators and the Department Superintendent met in a two-day session to perform the JTA. The experience level of the participants:

- Department Supervisor (NH) – Department Supervisor for 4 years, System Operator for 7 years, Substation Department for 12 years. Attended OES-NA *Train the Trainer* course in April 2005.
- Operator 1 (GW) – System Operator for 7 years. Substation Department for 20 years, Generation Operations for 3 years
- Operator 2 (SR) – System Operator for 1 year, Substation Department for 10 years, Generation Operations for 15 years
- Operator 3 (SZ) – System Operator for 2.5 years, Electrical Distribution Planning Department for 10 years, Nuclear Plant Operations for 10 years, including 3.5 years as a Reactor Operator.

Items 1 thru 4 of Attachment 1 were completed in a Table-Top Job Analysis format. The result was a preliminary WPS System Operator Task list. Each task was reviewed and assigned an operator level (Level 1, 2 or 3, with 3 being the Entry Level Operator). Each task considered “reliability-related” was identified.

January 30, 2007

Preliminary WPS System Operator Task list out to group for review.

February 18, 2007

- Create file named “SO OJT Book.xls”. After task lists are finalized, update tasks in this file and sort by level. Can use for OJT book to track trainee progress.
- Create file named “SO Job Task Analysis Summary.xls”. After task lists are finalized, update tasks in this file. Use this file to keep track of JTA criteria for each task.

July 10, 2007

Two System Operators (GW, SZ) and the Department Superintendent (NH) met to develop an oral board to give an operator progressing from Level 2 System Operating Supervisor to Level 1 System Operating Supervisor.

July 20, 2007

Start draft of Level 1 System Operator Review Board. Send to NH, JM, and GW for review. Start draft of Level 1 System Operator Oral Board Study Guide.

November 16, 2007

Review draft of Level 1 System Operator Review Board with NH and JM. Send draft of Level 1 System Operator Oral Board Study Guide to other System Operators for review.

November 27, 2007

Restricted folder created to assure integrity of tests.

January 2008

Level 1 System Operator Oral Board reviewed by TD.

March 18, 2008

Level 1 System Operator Oral Board approved by NH.

April 14, 2008

Level 1 System Operator Oral Board conducted for LP and KT.

May 5, 2008

SZ begins System Operator training position.

July 10, 2008

Develop Level 3 SO Oral Board Study Guide and Board; to NH for review.

July 14, 2008

Revise SO Job Task List.xls, create R1. Adjust DAs to match SOP process. Rearrange tasks. Verified all tasks accounted for from original list.

July 21, 2008

Level 3 SO Oral Board Study Guide to LP and EG for review.

August 11, 2008

Level 3 SO Oral Board Study Guide and Level 3 SO Oral Board approved.

September 20, 2008

Revise SO Job Task List.xls. Create R2. Move approximately 50 tasks from Level 2 to Level 1. Re-sequence tasks in order Level 3 to Level 1. Task division:

- o Level 1 135 tasks
- o Level 2 98 tasks
- o Level 3 33 tasks
- o Total 266 tasks

September 24, 2008

Combine all OJT books into one OJT book called "SO OJT Book R1a.xls". Level 1 and Level 2 tasks are from the original job task identification.