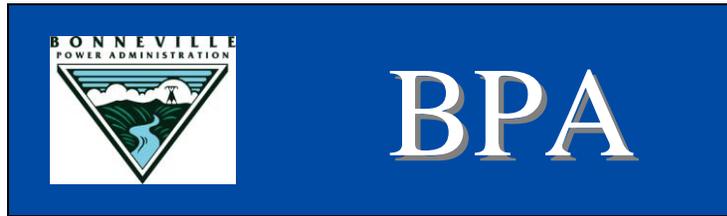


B O N N E V I L L E   P O W E R   A D M I N I S T R A T I O N



# SUBSTATION OPERATOR SKILL STANDARDS

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Research Conducted by:

Alan Hardcastle, Senior Research Associate  
WSU Extension Energy Program- Olympia  
905 Plum St. SE Bldg. #3  
P.O. Box 43165  
Olympia, WA 98504-3165  
Ph: 360-956-2167 Fax: 360-236-2167  
hardcast@wsu.edu



Terryll Bailey, Principal  
The Allison Group  
9016 Meridian Avenue North  
Seattle, WA 98103  
206-525-7175 FAX 206-129-1534

*THE ALLISON GROUP*

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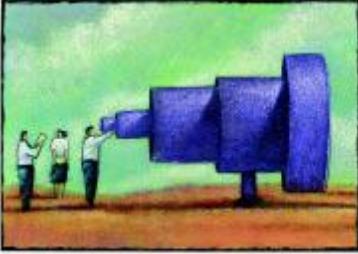
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# Introduction



## Skill Standards for BPA Occupations: Project Summary

- A National Context for Skill Standards
- What Are Skill Standards?
- Why Are Skill Standards Important?
- The Benefits and Uses of Skill Standards

## Skill Standards to Curriculum: A Continuous Development Process

## Pyramid of Competencies

## **Skill Standards for BPA Occupations: Project Summary**

This document contains background information and a complete set of industry-defined skill standards for a specific occupation at the Bonneville Power Administration (BPA). BPA sponsored the development of occupation-specific skill standards through this project for two key reasons: First, skill standards provide the specific information that BPA leadership needs to respond effectively to current knowledge and skill requirements of employees in specific occupations related to power generation. Second, skill standards will also enable BPA to better prepare for future skill gaps that may occur due to employee retirements, promotions and ongoing technological changes in the energy industry.

### **A National Context for Skill Standards**

The National Skill Standards Board was established by Congress in 1994 to encourage the creation and adoption of a national system of voluntary skill standards that would enhance the ability of the U.S. to compete effectively in a global economy. Since then, several national voluntary skill standards projects were developed by various industries in full partnership with education, labor and community-based organizations. The intent was to have voluntary skill standards that were flexible, portable, and could be continuously updated and improved.

Voluntary, industry based skill standards should be:

- Responsive to changing work organizations, technologies and market structure.
- Benchmarked to world-class levels of industry performance and free from gender, racial, or other forms of bias.
- Tied to measurable, competency-based outcomes that can be readily assessed.
- Inclusive of basic reading, writing, and critical thinking skills.
- Useful for qualifying new hires and continuously upgrading employees' skills.
- Applicable to a wide variety of education and training providers, both work and school-based.
- Based on a relatively simple structure to make the system user-friendly.
- A cooperative effort among all stakeholders.
- Developed independently of any single training/education provider or type of education/training provider.

### **What Are Skill Standards?**

Skill standards are performance specifications that identify the knowledge, skills and abilities an individual needs to succeed in the workplace. They are critical to improving workforce skills, raising living standards, and improving the competitiveness of the U.S. economy. To be effective, skill standards must reflect the consensus of power generation professionals.

Skill standards provide measurable benchmarks of skill and performance achievement. They answer two critical questions: What do workers need to know and be able to do to succeed in today's workplace? And, how do we know when workers are performing well? Without this fundamental information, employers do not know whom to hire or where to focus their limited training dollars; employees and new entrants to the workforce do not know what they need to do to improve their performance; educators do not know how to prepare students for the challenge of the workplace.

## **Why Are Skill Standards Important?**

In today's workplaces, the only constant is change. Jobs that once were relatively simple now require high performance work processes and enhanced skills. Because skill standards reflect changing workplace realities, they are a tool that can be used by applicants and employees to access greater career opportunities.

Updating skills and knowledge is now a lifelong endeavor, causing many employers and employees to spend more effort, time, and money on education and training. Skill standards provide benchmarks for making education and training decisions, shaping curricula, and directing funds toward highest value education and training investments.

## **The Benefits and Uses of Skill Standards**

Skill standards benefit all the stakeholders—business, labor, educators, government, and the community. The success of a skill standards development project and its usefulness to the community is dependent on the full participation and commitment of all stakeholders. These benefits can be used as a benchmark for evaluating the effectiveness of collaborative efforts.

### ***How Skill Standards Benefit Employers***

Employers can use skill standards to establish personnel qualification requirements. Interviews, performance reviews, and productivity can be evaluated and assessed to a higher degree of accuracy and efficacy. Employers are also able to identify core competencies and workers' abilities to demonstrate competencies. By matching competencies to critical work functions and key activities, employers can significantly improve efficiencies and productivity. Performance-based skill standards also provide a vehicle for varying degrees of job certainty and the structure for establishing competency-based pay scales. In addition, employers use skill standards to:

- Align personnel qualification requirements with nationally adopted certificates of competence.
- Modify employee training.
- Simplify measurement of employee training effectiveness.
- Assess employee skill levels based on industry standards.
- Match employee skills to the work needed.
- More easily document employee skills, training needs, and performance criteria.
- Improve consumer satisfaction and confidence through better developed evaluation skills for customer contact personnel.
- Improve employee satisfaction and morale by clarifying expectations.
- Improve quality, productivity, time-to-market and competitiveness.
- Achieve business goals.
- Partner with education and labor in developing school-to-work initiatives.

### ***How Skill Standards Benefit Workers***

Skill standards assist students in making career choices by providing industry expectations for success in the workplace. In addition, standards-based curriculum and assessments provide students with credentials that certify work-readiness. Work-ready students can anticipate being hired at higher rates of pay and can experience faster advancement in their chosen fields. Workers can accurately assess their skills against those required for career advancement and plan effectively for their career pathways. They can determine the skills and abilities needed for advancement or transfer within industries, and determine the continuous learning and training they need to upgrade their skills. In addition, students and workers can use skill standards to:

- Achieve clarity regarding what they are expected to learn and how to prepare for work.
- Enter and reenter the workforce with better control of their choices of high paying jobs requiring high skills.
- Accurately assess business expectations of the skills needed for positions and careers of their choice.
- Improve mobility and portability of their credentials.
- Obtain certification of competence of the skills they gain through experience, school, training, or self-study.
- Enhance their performance and achievement by self-evaluation against known standards.
- Be active contributors to the activities that make their organizations successful.

### ***How Skill Standards Benefit Labor Unions***

Labor unions can use skill standards to gain support for company-sponsored worker training programs and to identify career paths for workers within companies and industries. Unions can provide this information to union members and develop strategies to improve career mobility and stability. Skill standards help unions to:

- Improve member value to the company.
- Provide a greater worker voice in the company.
- Link skill standards to increased training and upward career mobility for union members.
- Assist employers to match employee skills to the work needed.
- Develop skills-based training and certification initiatives that complement union apprenticeship programs.
- Communicate effectively with employers about worker training and retraining needs.
- Cooperate with education and industry in developing school-to-work initiatives.

### ***How Skill Standards Benefit Educators***

Educators can identify core competencies and assessments based on the skill standards and implement them in their curricula. Students can then be required to demonstrate competency throughout their coursework. Academia and industry can build a cohesive relationship through a like-minded expectation of student competencies and work readiness. This enhances an instructor's ability to teach information consistent with industry's entry level expectations and needs. In addition, educators use skill standards to:

- Partner with business and labor in developing school-to-work initiatives.
- Provide effective, targeted instruction.

- Develop benchmarks for certificates of competence earned by students.
- Communicate what companies expect of employees.
- Develop new and evaluate existing curriculum and programs based on industry needs.
- Develop assessments to evaluate skills, knowledge, and abilities in classrooms and internships.
- Develop a common language on workforce preparation with business and labor.
- Improve relationships with local businesses, labor unions, other educators and agencies.
- Provide students with relevant career education and counseling.

### ***How Skill Standards Benefit Government***

Government can provide information that will ensure a better skill match between workers and employers and initiate education reform to better educate future members of the workforce. Skill standards better enable agencies to provide options for career and job mobility and link learning to the needs of the workplace. In addition, government can use skill standards to:

- Assist in the development of a highly skilled, high-quality, and competitive workforce and industry base.
- Evaluate the effectiveness of publicly funded education and training.
- Increase opportunities for under-represented populations by making public the information that defines the skills required for success, and by facilitating the national adoption of those definitions and their use.
- Support the creation of high performance organizations where they improve living standards for all members of the population.
- Facilitate collaboration between educators and industry.
- Communicate the need and basis for education reform to business, education, labor, and the community-at-large on both local and national levels.

### **Skill Standards to Curriculum: A Continuous Development Process**

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The skill standards generated in this project are designed to be used by participating education partners to develop or modify curriculum at the high school and community college level. By providing the necessary input from industry, this skill standards document is a first step in curriculum development to serve the power transmission industry in particular, and to demonstrate what can be done across industries.

In order to keep current with a rapidly changing workplace, standards need to be reevaluated and updated on a regular basis, with full partner participation at each step. New technological developments impact the ways that workers organize and apply their skills, including time management and interpersonal relationships. Increased technological complexity may simplify some of the job tasks but make others more intricate. Today's successful power transmission workers are challenged to acquire a broader range of decision making and customer service skills as well as keep current with emerging technologies. Ongoing changes like these must be reflected in curriculum in order to meet the needs of industry, where expectations for workers are evolving.

## ***A model of continuous improvement for economic development: Using Skill Standards***

### ***Step 1: Skill Standards Identification***

- Compile and research existing standards in related jobs and careers.
- Conduct focus groups to identify critical work functions and key activities, define key activity performance indicators, and identify technical knowledge, foundation skills, and personal qualities.
- Conduct a survey of current workers to determine level of SCANS skills required for each job.
- Develop work-related scenarios to place the skill standards in the context of the work environment.
- Verify the data gathered from focus groups.
- Disseminate skill standards information to involved parties from industry, education, and labor for their review and editing.

### ***Step 2: Curriculum Development***

- Identify necessary competencies based on the skill standards information and assessments.
- Develop program outcomes for specific academic and training programs, including Tech Prep, 2-year, and apprenticeship programs.
- Perform gap analysis to determine changes or additions to be made to curriculum.
- Revise existing curriculum to better meet the current and future needs of the industry.
- Develop new curriculum and establish new programs based on these competencies.

### ***Step 3: Articulation***

- Develop models to support the articulation of program outcomes and competencies between academic and training systems.
- Establish articulation agreements between existing programs to ensure portability of skills.
- Connect competencies and Certificates of Competence with benchmark documentation to ensure the portability of competencies across industry.

## **A Continuous Updating Process**

A continuous exercise is necessary: all partners must revise and verify skill standards on a regular basis. Curriculum and current training methods must be updated to meet workplace standards.

Individual workers must have access to clearly stated competency goals and direct access to skill development assistance. With cooperative effort on local and national levels, we can begin to resolve the workforce shortages in the power transmission industry that face us today.

## Pyramid of Competencies

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The Pyramid of Competencies is a depiction of skill standards in three broad skill categories.

### ***Tier I***

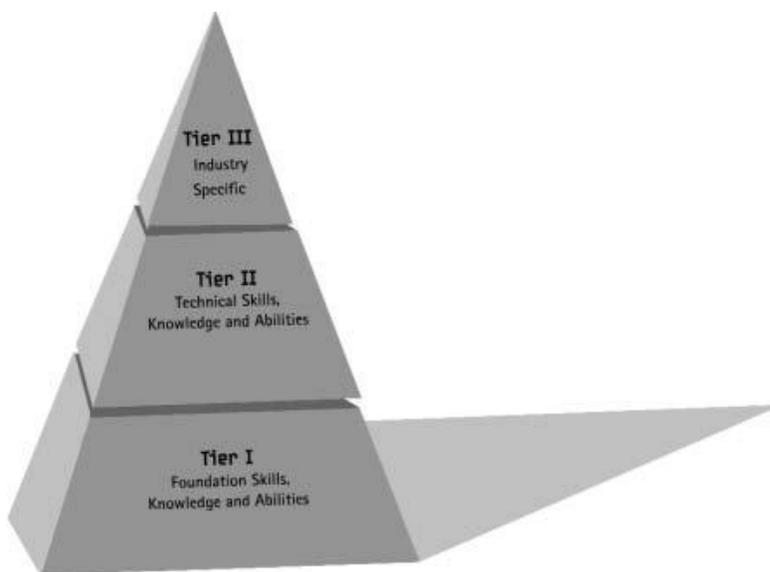
Tier I represents the broadest level of competencies, and is the set of employability (SCANS) skills, knowledge, abilities, and personal qualities required of all workers to be successful in today's workplace. These are the universal skills that are needed to apply technical knowledge and tools effectively.

### ***Tier II***

Tier II represents technical skills, knowledge, and abilities common to a cluster of jobs across all an industry. For workers at BPA, for example, knowledge of safe work practices would apply across all jobs.

### ***Tier III***

Tier III represents industry-specific technical skills, knowledge, and abilities that are unique to individual jobs and are the most prone to rapid change. For example, many workers need to upgrade their skills based on new technology.



# BPA Skill Standards Project



Project Goals, Guidelines and Methodology

Employability Skills: SCANS Profile

Definition of Terms

## **BPA Skill Standards Project Goals, Guiding Principles, and Methodology**

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### **Goals**

- Identify voluntary skill standards for specific jobs at BPA.
- Disseminate the results and support the use of skill standards for the purposes of professional development.

### **Guiding Principles**

- Experienced workers are the experts in their career field and are best able to identify the work performed and the skills, knowledge, and abilities required to be successful.
- Business, labor, and education must work as partners to ensure the creation of a link between the work expectations and the curriculum.
- The standards must be consistent with existing civil rights laws and practices.
- Standards must be flexible, portable, and should be updated continuously.
- Skill standards describe the major functions and key activities, as well as the performance indicators, technical knowledge and skills, employability skills, and personal attributes needed to succeed in the workplace.
- Integrated skill standards define work duties and the skills required to perform them in the context of work settings.

The experience of the partners involved in this project holds that the success of any skill standards project is critically linked to the full participation and commitment of all partners.

### **Identification of Skill Standards: Research Methodology**

#### **Background**

These BPA-defined skill standards were developed using specific research-based processes. The project followed the process required by the Washington State Board for Community and Technical Colleges (SBCTC) as described in *Skill Standards Guidebook I*, Washington State Board for Community and Technical Colleges, 1996 and the process developed by the National Skill Standards Board (NSSB). In particular, the protocols used for the ICT (Information Communications Technology) skill standards were applied to this project.

## *Focus Groups*

Focus groups of BPA subject matter experts were conducted. The panelists were selected for their expertise in their field, and every effort was made to include a variety of geographical areas. Panelists were all journeyman and many had ten or more year's experience.

A structured process was used to guide the panel through the development of the critical work functions and key activities. In each focus group, the process included the following elements:

- Panelists were facilitated by a professional skill standards focus group leader.
- Panelists received an orientation to skill standards. Examples were provided.
- Panelists arrived at consensus regarding the components of the skill standards.
- Panelists clarified the organization and structure of the critical work functions and key activities, filled in gaps, and confirmed the accuracy of the critical work functions and key activities.
- Panelists identified performance indicators for each key activity.
- Panelists identified occupational technical knowledge and skills for each key activity.
- Panelists brainstormed the topics that need to be covered in training and education programs to prepare people to enter the work.
- Panelists completed a survey to level SCANS skills (see below) and determined the top 5 to 7 SCANS skills for each key activity.

After a thorough orientation to skill standards, panelists were asked to brainstorm critical work functions for the job. After composing their own critical work functions, they were then provided with the draft critical work functions identified through research. Panelists were asked to compare the research-identified critical work functions with those they brainstormed as a group, and to consider the following criteria:

- Is the function a broad responsibility?
- Does it take a significant amount of time to achieve?
- Are there groupings of Key Activities associated with it?

Participants were asked to review the key activities for each critical work function, and to posit appropriate changes whenever necessary. The criteria used for this purpose were:

- Does the activity describe what you have to do to achieve this function?
- Is it a major area of task responsibility?
- Is it concrete and specific?
- Does it have relatively equal importance to the other Key Activities?
- Does each Key Activity require distinct, definable skills?

Once the critical work functions and key activities were finalized, performance indicators were developed for each key activity. Panelists were asked how they know when a task is performed well, and what elements need to be in place so they would be ensured that this key activity is performed competently. The following criteria were provided regarding performance indicators:

Performance Indicators should...

- Describe competent performance.
- Be directly observable, concrete and measurable.
- Capture the essential aspects of performance.

- Be as precise and explicit as possible but still apply to the job throughout the BPA.
- Reflect what the individual can control.

Panelists brainstormed performance indicators, and then arrived at consensus with respect to the final list. The group was assisted in putting the content into appropriate language format.

Panelists next moved to identify the occupational technical knowledge and skills for each key activity. They brainstormed occupational technical knowledge and skills, and then arrived at the final list through consensus. Panelists were asked what a person needs to know and be able to do to accomplish the key activity at the level defined by the performance indicators.

In each focus group an informal discussion was held to identify the subjects and topics most important for new entrants to the industry.

### *Surveys*

A survey was conducted to level SCANS skills and personal qualities for the job. SCANS (Secretary's Commission on Achieving Necessary skills) are foundation abilities required of workers in all occupations at varying levels specific to their jobs, ranging from basic academic skills to problem solving, working in teams, and the use of technology. Surveys were distributed to panelists in the focus groups and to workers across BPA. The SCANS survey results are in the Academic and Employability Knowledge and Skills column of the skill standards template, and a technical report describing the research methodology, results and raw data was produced and submitted to BPA under a separate cover.

## Employability Skills: SCANS Profile

During the data-gathering process of this project, employability skills for BPA jobs were leveled. Employability, or workplace skills, are basic academic and foundation skills needed to build more advanced competencies. The foundation skills are based on broad workplace categories, known as SCANS (Secretary's Commission on Achieving Necessary Skills, U.S. Department of Labor). This federal report issued in 1991 identifies 37 foundation and workplace competencies required for work readiness.

SCANS are comprised of a three-part foundation of skills and personal qualities and five workplace competencies needed for successful job performance in today's workforce. Professionals currently working in the field were asked to identify the level of difficulty for each of the 37 SCANS skills most required for successful workplace performance in each job. The information in the charts on the following pages was compiled by taking a weighted average of the responses from workers in the specific job. This information provides the foundation for the employability skills within the skill standards.

### Basic Skills

Reading  
Writing  
Arithmetic  
Mathematics  
Listening  
Speaking

### Personal Qualities

Responsibility  
Self-worth  
Sociability  
Self-management  
Integrity/Honesty

### Thinking Skills

Creative Thinking  
Decision Making  
Problem Solving  
Visualization  
Knows/Learns  
Reasoning

### Workplace Competencies

Utilizing Resources  
Interpersonal Skills  
Utilizing Information  
Using Systems  
Using Technology

The *ADVANCE™ Workplace Standards Skill Inventory* from Advance Educational Spectrums, Inc. was used to capture industry views on foundation skills for power transmission workers. Industry professionals ranked the SCANS skill levels required.<sup>1</sup>

|   |   |  |   |  |   |
|---|---|--|---|--|---|
| <b>Applies creative thinking</b>          | <b>Level I</b> □<br>• Makes connections between old and new<br>• Recognizes patterns and relationships                              | <b>Level II</b> □<br>• Analyzes/understands/interprets existing ideas<br>• Identifies transforming techniques    | <b>Level III</b> □<br>• Develops creative solutions<br>• Applies creative solutions to new situations                     | <b>Level IV</b> □<br>• Generates unique solutions<br>• Formulates new strategies, approaches, and processes                | <b>Level V</b> □<br>• Judges solution creativity  |
| <b>Applies decision making strategies</b> | <b>Level I</b> □<br>• Understands decision making process<br>• Recalls basic rules/principles<br>• Identifies goals and constraints | <b>Level II</b> □<br>• Applies rules/principles to situations<br>• Gathers information                           | <b>Level III</b> □<br>• Analyzes relevant information<br>• Considers risks/implications<br>• Compares multiple viewpoints | <b>Level IV</b> □<br>• Generates alternative solutions<br>• Evaluates alternative solutions<br>• Formulates plan of action | <b>Level V</b> □<br>• Judges consistency/precedence<br>• Justifies (justifies/evaluates)<br>• Sets decision making parameters |
| <b>Recognizes and solves problems</b>     | <b>Level I</b> □<br>• Identifies the problem  | <b>Level II</b> □<br>• Understands the complexity of the problem<br>• Appropriately refers complex/unfamiliarity | <b>Level III</b> □<br>• Locates relevant facts/data<br>• Analyzes possible causes/reasons<br>• Recommends action plan     | <b>Level IV</b> □<br>• Generates/collects solutions<br>• Develops/implements plan of action                                | <b>Level V</b> □<br>• Evaluates/implements plan of action<br>• Judges effectiveness/efficiency of solution                    |

Sample survey questions from the Advance Workplace Standards Skill Inventory

<sup>1</sup> The *Workplace Standards Skill Inventory* was used with permission from Centralia College through the State Board for Community and Technical Colleges, which holds a license agreement with Advance Educational Spectrums, Inc.

## **Definition of Terms**

Each chart in the following skill standards templates contains the following components:

### ***Academic and Employability Skills***

Employability skills are basic academic and personal skills that are needed to build more advanced competencies. They are competencies required by all workers in order to obtain meaningful work and participate in the modern workforce.

### ***Critical Work Functions***

Critical work functions represent the general areas of responsibility for the front-line worker in power transmission. The functions tell us what must be done to achieve the key purpose of an occupation or job.

### ***Key Activities***

Key activities are the tasks performed by workers and related to the functional area of the job. They are made up of work activities which are measurable and observable, and which result in a decision, product or service.

### ***Performance Indicators***

Performance indicators are specific behavioral evidence of a worker's achievement of skills, knowledge, and task completion. The question answered is: "How do we know when this key activity is performed well?" Performance indicators provide the standard of performance required to produce the necessary outcomes of key activities.

### ***Technical Skills, Knowledge, Abilities and Tools***

Technical skills, knowledge, and abilities are those areas of expertise which workers must have in order to perform a given occupational task with excellence. A collection of skills, knowledge, abilities, and tools make up competencies.

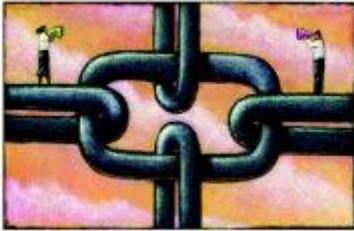
Skills refer to proficiency in an applied activity. This activity could be physical, mental, or interpersonal in nature.

Knowledge is a particular set of information.

Abilities are broad human characteristics that result from natural talent, training, or experience.

Tools are materials, equipment, and implements a worker must be able to use competently to meet the requirements of the job.

# Skill Standards for Substation Operator



Summary of Critical Work Functions  
and Key Activities

Skill Standards

**Bonneville Power Administration**  
**Substation Operator**

| <b>Critical Work Functions</b>  | <b>Key Activities</b>   |  |  |  |   |  |  |   |   |
|---|---|--|--|--|---|--|--|---|---|
| <b>A. Conduct District Operations &amp; Inspections</b>               | <b>A1</b><br><i>Perform switching</i>   | <b>A2</b><br><i>Inspect substation and field equipment</i>           | <b>A3</b><br><i>Manage substation operations</i>                                   | <b>A4</b><br><i>Interface with utilities and customers</i>   | <b>A5</b><br><i>Inspect and investigate security measures</i>                           | <b>A6</b><br><i>Ensure accuracy of Substation Operating Manuals and blueprints</i> | <b>A7</b><br><i>Participate in or coordinate meetings and problem solving groups</i> | <b>A8</b><br><i>Monitor performance and provide training for apprentice operators</i> | <b>A9</b><br><i>Respond to system emergencies and perform troubleshooting</i> |
| <b>B. Coordinate Work and Outage Planning</b>                         | <b>B1</b><br><i>Assist with significant equipment outage planning</i>                   | <b>B2</b><br><i>Perform District/system-wide outage coordination</i> | <b>B3</b><br><i>Submit outage requests</i>   | <b>B4</b><br><i>Coordinate outages with other entities</i>   | <b>B5</b><br><i>Perform scheduling / planning for work that does not require outage</i> |  |  |   |   |
| <b>C. Maintain a Safe Work Environment</b>                            | <b>C1</b><br><i>Provide safety training and participate in or chair safety meetings</i> | <b>C2</b><br><i>Conduct safety inspections</i>                       | <b>C3</b><br><i>Document inspection results and regulatory compliance</i>          | <b>C4</b><br><i>Complete mandatory training</i>              | <b>C5</b><br><i>Direct emergency personnel</i>  | <b>C6</b><br><i>Ensure compliance with safety regulations</i>                      | <b>C7</b><br><i>Identify and report unsafe conditions and take corrective action</i> | <b>C8</b><br><i>Perform testing and certification and control of entry</i>            |   |
| <b>D. Perform Administrative &amp; Non-Electrical Plant Functions</b> | <b>D1</b><br><i>Maintain records and reports</i>  | <b>D2</b><br><i>Conduct annual personal property inventory</i>       | <b>D3</b><br><i>Maintain tools, equipment and supplies</i>                         | <b>D4</b><br><i>Submit payroll, travel and leave data</i>    | <b>D5</b><br><i>Report non-electrical plant deficiencies</i>                            | <b>D6</b><br><i>Perform caretaking duties</i>                                      |  |   |   |
| <b>E. Coordinate Construction Projects</b>                            | <b>E1</b><br><i>Facilitate release to operations process</i>                            | <b>E2</b><br><i>Participate in construction meetings</i>             | <b>E3</b><br><i>Review PRD (Project Requirements Diagram) and provide feedback</i> | <b>E4</b><br><i>Facilitate return to construction status</i> |   |  |  |   |   |
| <b>F. Maintain an Environmentally-Conscious Work Place</b>            | <b>F1</b><br><i>Conduct environmental inspections</i>                                   | <b>F2</b><br><i>Monitor and review spill plans and equipment</i>     | <b>F3</b><br><i>Inventory and document hazardous materials and equipment</i>       | <b>F4</b><br><i>Respond to environmental emergencies</i>     |   |  |  |   |   |

## Job: Substation Operator

### Critical Work Function: A. Conduct District Operations & Inspections

| KEY ACTIVITY                            | <i>Performance Indicators</i><br>How do we know when the task is performed well?   | <i>Technical Knowledge</i><br>Skills, Abilities, Tools   | <i>Employability Skills</i><br>SCANS Skills and Foundational Abilities  |
|---|--|--|---|
| <p>A1.<br/><i>Perform switching</i></p> | <ul style="list-style-type: none"> <li>• Pre-switching activities and switching are performed in accordance with operating bulletins and Work Standards and OTM (Operations Technical Manual) and APM (Accident Prevention Manual).</li> <li>• Power system equipment is operated within manufacturer and BPA policies and procedures.</li> <li>• Switching orders are properly written, approved (where applicable) and executed.</li> <li>• Proper documentation is completed accurately and in a timely manner.</li> <li>• Correct PPE (Personal Protective Equipment) is inspected and worn and all applicable safety procedures are followed.</li> <li>• Correct equipment is identified and verified prior to starting activity.</li> <li>• Hot sticks (high voltage insulated tools) are used as appropriate with no undesirable results</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of pre-switching activities.</li> <li>• Knowledge of switching.</li> <li>• Knowledge of Work Standards, OTM and APM.</li> <li>• Knowledge of power system, equipment and their operation.</li> <li>• Knowledge of BPA policies and procedures regarding power system equipment and manufacturer's operating parameters.</li> <li>• Knowledge of equipment loading and temperature limits.</li> <li>• Ability to write and execute switching orders.</li> <li>• Knowledge of approval requirements for switching orders.</li> <li>• Knowledge of PPE and safety procedures with respect to switching.</li> <li>• Ability to identify and verify status of equipment.</li> <li>• Knowledge of use and care of hot sticks (high voltage insulated tools).</li> </ul> | <ul style="list-style-type: none"> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Understands technological requirements and results; analyzes task/technology relationship; proposes simple technological solutions.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|---|--|---|---|
| <p><b>A2.</b><br/><i>Inspect substation and field equipment</i></p> | <ul style="list-style-type: none"> <li>• Inspections are conducted in a complete and timely manner, in accordance with the appropriate Operating Bulletin.</li> <li>• The correct forms and inspection sheets are designed using word processing or spreadsheet program and used properly.</li> <li>• Forms and inspection sheets are completed and database system (i.e. CASCADE) is accurately updated in a timely manner.</li> <li>• Proper tools are used and readings and measurements are accurate.</li> <li>• Safety procedures are followed and barriers and guards are used properly and are honored.</li> <li>• Correct PPE (Personal Protective Equipment) is inspected and worn properly.</li> <li>• Abnormal conditions are properly documented and reported to appropriate crafts/authority effectively and in a timely manner.</li> <li>• Four senses are used during inspection: sight, hearing, smell and feel.</li> <li>• Proper environmental authorities are alerted as required.</li> <li>• Station conditions are being properly checked and monitored and abnormal conditions are accurately recognized, investigated and properly reported (such as mimic bus, line loading, bus voltage levels, and alarms).</li> <li>• When applicable, PDA (Personal Digital Assistant) proficiency is maintained.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of inspection procedures and Operating Bulletins.</li> <li>• Ability to design inspection sheets and forms using word processing or spreadsheet program.</li> <li>• Knowledge of how to use inspection sheets and forms.</li> <li>• Knowledge of tools used in substation and equipment inspection.</li> <li>• Ability to accurately measure quantities and obtain accurate readings.</li> <li>• Knowledge of equipment loading and temperature limits.</li> <li>• Knowledge of safety procedures with respect to substation and field equipment inspection and knowledge of APM (Accident Prevention Manual).</li> <li>• Knowledge of correct use of PPE (personal protective equipment) and PPE requirements.</li> <li>• Knowledge of documentation and reporting procedures for abnormal conditions.</li> <li>• Knowledge of use of PDA, personal computer and operations network resources.</li> <li>• Knowledge of requirements for alerting environmental authorities.</li> <li>• Ability to monitor and check station conditions, recognize and investigate abnormal conditions and report them.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Evaluates performance of technology; analyzes failures.</li> <li>• Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.</li> </ul> |

| KEY ACTIVITY   | Performance Indicators<br>How do we know when the task is performed well?  | Technical Knowledge<br>Skills, Abilities, Tools   | Employability Skills<br>SCANS Skills and Foundational Abilities   |
|--|--|---|---|
| <p><b>A3.</b><br/><i>Manage substation operation</i></p> | <ul style="list-style-type: none"> <li>• Substation is secured in accordance with the appropriate Work Standard.</li> <li>• Security procedures are being followed.</li> <li>• Station conditions are being properly checked and monitored and abnormal conditions are accurately recognized, investigated and properly reported (such as mimic bus, line loading, bus voltage levels, and alarms).</li> <li>• Log book is accurate, complete and up to date.</li> <li>• Housekeeping and facility maintenance are up-to-date and complete.</li> <li>• Regular inspection and servicing of station safety equipment is completed in accordance with Safety and Health Program Handbook, Work Standards and all applicable laws and regulations.</li> <li>• Communication and collaboration with other crafts is maintained.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of substation security procedures.</li> <li>• Knowledge of requirements for log book.</li> <li>• Knowledge of requirements for housekeeping and facility maintenance.</li> <li>• Knowledge of substation and transmission equipment.</li> <li>• Ability to monitor and check station conditions, recognize and investigate abnormal conditions and report them.</li> <li>• Knowledge of the specific procedures required for the different Homeland Security levels.</li> <li>• Knowledge of Operating Bulletins, Work Standards and the APM (Accident Prevention Manual).</li> <li>• Knowledge of other crafts' work practices and procedures.</li> <li>• Knowledge of inspection and servicing procedures for station safety equipment.</li> <li>• Knowledge of Safety and Health Program Handbook, Work Standards, and applicable laws and regulations regarding safety inspections.</li> </ul> | <ul style="list-style-type: none"> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Monitors system performance, analyzes system operation, distinguishes trends in performance and diagnoses performance deviations.</li> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Effectively manages time; prepares and organizes multiple schedules and manages timelines.</li> <li>• Establishes rapport with company-workers and customers; modifies behavior to environment; shows understanding for others and encourages cooperation and negotiation.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|--|--|--|
| <p><b>A4.</b><br/><i>Interface with utilities and customers</i></p> | <ul style="list-style-type: none"> <li>• Information is accurately given and received, is appropriate to the situation and is timely.</li> <li>• Questions are answered in a courteous and respectful manner.</li> <li>• Internal and external customer issues are accurately and thoroughly discussed and solutions are defined.</li> <li>• Communication is clear, concise and conducted in a business-like manner.</li> <li>• Proper terminology is used to communicate with all organizations and personnel.</li> <li>• Appropriate communications are delivered in an effective manner to external organizations such as, state and federal agencies, generation sites and irrigation districts in accordance with <i>Standards of Conduct</i>.</li> <li>• Organizations are referred to the public relations department when appropriate.</li> <li>• Orientations for emergency personnel and customers are planned, scheduled and conducted in a complete and timely manner and in accordance with <i>Operating Bulletin.s</i></li> <li>• Work planning and outage schedules are communicated and coordinated with utilities and customers in an effective manner.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of BPA transmission system.</li> <li>• General knowledge of customers' systems, safety and operating procedures and organizational structure.</li> <li>• Knowledge of agency policies regarding required and allowable communications as defined in <i>Standards of Conduct</i>.</li> <li>• Ability to identify and report internal and external customer issues.</li> <li>• Knowledge of industry and customer terminology.</li> <li>• Knowledge of BPA department roles and responsibilities.</li> <li>• Knowledge of topics covered in customer orientations.</li> <li>• Knowledge of <i>Operating Bulletins</i>.</li> <li>• Ability to provide substation orientations to customers and emergency personnel.</li> </ul> | <ul style="list-style-type: none"> <li>• Interprets, clarifies and influences communication and compares multiple viewpoints.</li> <li>• Analyzes and responds to customer needs; obtains additional resources to meet customer needs; makes exceptional effort on behalf of customer.</li> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> <li>• Recognizes the value of diversity and responsibly challenges discriminatory practices and procedures.</li> <li>• Establishes rapport with company-workers and customers; modifies behavior to environment; shows understanding for others and encourages cooperation and negotiation.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|--|---|--|---|
| <p><b>A5.</b><br/><i>Inspect and investigate security measures</i></p> | <ul style="list-style-type: none"> <li>• Security breaches and vandalism are reported to BPA Security, System Dispatcher, law enforcement, and Chief Operator immediately and accurately.</li> <li>• Evidence is gathered in a thorough and timely manner, including photographs/video.</li> <li>• When losses or damage are discovered, a thorough inventory is taken, inspection performed and, when applicable, accurate replacement estimates are obtained.</li> <li>• Security Incident report is completed with required content and format and distributed to appropriate personnel in a timely manner.</li> <li>• Files on incidents are maintained in accordance with appropriate <i>Work Standard</i> and <i>Operating Bulletin</i>.</li> <li>• Essential operations safety equipment is replaced immediately.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of reporting requirements for security breaches and vandalism.</li> <li>• Knowledge of the type of evidence required for violations and intrusions.</li> <li>• Knowledge of inventory, inspection and cost estimating procedures.</li> <li>• Knowledge of security incident reporting policies and procedures, required format and content.</li> <li>• Knowledge of policies and procedures regarding file retention and security.</li> <li>• Knowledge of purchasing procedures for essential operations safety equipment.</li> <li>• Knowledge of internal and external security contacts.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Evaluates performance of technology; analyzes failures.</li> <li>• Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|--|---|--|---|
| <p><b>A6</b><br/><i>Ensure accuracy of substation operating manuals and blueprints</i></p> | <ul style="list-style-type: none"> <li>• Station instructions updated in a timely manner and are verified for accuracy.</li> <li>• Blueprints are up to date and filed accurately.</li> <li>• System equipment records are accurate and up to date.</li> <li>• Blueprint index is current.</li> <li>• Station and/or line configuration changes are submitted and communicated to appropriate Control Center in an effective and timely manner for updating of map board and dispatch jurisdictional diagrams.</li> <li>• Dispatch jurisdictional diagrams are verified for accuracy.</li> <li>• Blueprint revisions are verified against the red-lines for accuracy before filing.</li> <li>• <i>Substation Information Directory</i>, emergency call lists, contacts and qualified customer switchmen lists are kept up to date.</li> <li>• Personal computers and operations network resources are used in an effective manner when applicable.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of substation instruction requirements.</li> <li>• Knowledge of <i>Operating Bulletins</i> and <i>Work Standards</i>.</li> <li>• Knowledge of blueprint symbols.</li> <li>• Knowledge of blueprint index and updating procedures.</li> <li>• Knowledge of Control Center map board and dispatch jurisdictional diagrams.</li> <li>• Knowledge of power system equipment.</li> <li>• Knowledge of personal computers and operations network resources.</li> <li>• Knowledge of <i>Substation Information Directory</i> and the ability to keep call and contact lists up-to-date.</li> </ul> | <ul style="list-style-type: none"> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Interprets and applies new knowledge and experience, analyzes application of learning tools and investigates new learning techniques.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|---|---|--|
| <p><b>A7.</b><br/><i>Participate in or coordinate meetings and problem-solving groups</i></p> | <ul style="list-style-type: none"> <li>• Information is accurately given and received, is relevant and is timely.</li> <li>• Questions are answered in a courteous and respectful manner.</li> <li>• Issues are thoroughly discussed and solutions are defined.</li> <li>• Communication is clear, concise and conducted in a business-like manner.</li> <li>• Proper terminology is used.</li> <li>• Relevant agenda items are brought to the meeting and communicated clearly.</li> <li>• Participation of all is encouraged in an effective manner.</li> <li>• Acknowledgements and recognition are provided to individuals as appropriate.</li> <li>• Crew meetings are attended as required.</li> <li>• External customer meeting topics and schedule meet both customer and BPA needs.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of BPA and customer terminology.</li> <li>• Knowledge of BPA and general knowledge of customer power transmission systems and equipment.</li> <li>• Knowledge of the roles and responsibilities of agency personnel, work groups and departments.</li> </ul> | <ul style="list-style-type: none"> <li>• Actively participates in discussion; presents complex ideas and information and analyzes group and individual response.</li> <li>• Interprets, clarifies and influences communication and compares multiple viewpoints.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Effectively manages time; prepares and organizes multiple schedules and manages timelines.</li> <li>• Recognizes the value of diversity and responsibly challenges discriminatory practices and procedures.</li> <li>• Conducts task-specific training, coaches others to apply related concepts, provides constructive feedback and develops appropriate training procedures.</li> </ul> |

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|--|--|---|---|
| <p><b>A8.</b><br/><i>Monitor performance &amp; provide training for apprentice operators</i></p> | <ul style="list-style-type: none"> <li>• Performance expectations are communicated to the individual and the Chief Operator in an effective and timely manner.</li> <li>• Skills Development Report and Crew Evaluation Report are filled out accurately and submitted to the chief in accordance with required schedule.</li> <li>• Apprentice performance is continuously monitored through observation of the individual's work.</li> <li>• Mock end-of-step exams are attended, and apprentices are asked step-appropriate questions.</li> <li>• Remediation is planned and discussed with the Chief Operator.</li> <li>• Training is accurately given and received, is relevant and is timely.</li> <li>• Questions are answered in a courteous and respectful manner.</li> <li>• Communication is concise and appropriate.</li> <li>• Proper terminology is used.</li> <li>• Appropriate OJT (on-the-job) opportunities are identified and communicated to apprentices.</li> <li>• Training provided to apprentices has defined objectives which are based on job tasks and is appropriate to the step.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of job standards for operators.</li> <li>• Knowledge of job standards and training standards for apprentices.</li> <li>• Knowledge of mock end-of-step exams.</li> <li>• Knowledge of roles and responsibilities for operators and apprentices.</li> <li>• Knowledge of system and equipment.</li> <li>• Ability to observe and evaluate job skill performance.</li> <li>• Knowledge of BPA terminology.</li> <li>• Ability to identify OJT training opportunities.</li> <li>• Ability to identify technical training objectives.</li> </ul> | <ul style="list-style-type: none"> <li>• Conducts task-specific training, coaches others to apply related concepts, provides constructive feedback and develops appropriate training procedures.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Actively participates in discussion; presents complex ideas and information and analyzes group and individual response.</li> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Defends own viewpoints, accepts responsibility for own behavior and understands own impact on others.</li> <li>• Sets well defined goals, applies self management skills and appropriately modifies goals.</li> </ul> |

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|--|---|---|---|
| <p><b>A9.</b><br/><i>Respond to system emergencies and perform troubleshooting</i></p> | <ul style="list-style-type: none"> <li>• Fault, target and alarm information is accurately analyzed and communicated to appropriate Control Center and appropriate crafts in a clear and timely manner.</li> <li>• Information about problems and solutions are communicated to appropriate personnel in a timely manner.</li> <li>• Problems encountered are analyzed to determine impact on the system and immediacy, and repairs are facilitated as appropriate.</li> <li>• Resources are used in an efficient and cost effective manner.</li> <li>• Alternative solutions are analyzed, evaluated and recommended to appropriate personnel.</li> <li>• Work is performed safely in accordance with APM and <i>Work Standards</i>, pre-job briefing is conducted, and PPE (Personal Protective Equipment) is utilized at all times.</li> <li>• Emergencies and schedule changes are appropriately and effectively incorporated into the short range plan.</li> <li>• Other crafts called out and/or made aware of the work schedule in a timely manner.</li> <li>• The nature of the situation and the equipment conditions are accurately identified and communicated to appropriate crafts.</li> <li>• Coordination and communication with Control Center, customers and other crafts is maintained in a timely manner.</li> <li>• Priorities are set and changed as needed to meet the requirements of the system.</li> <li>• Blueprints and station instructions are referenced.</li> <li>• Procedures for isolating affected lines and/or equipment are initiated correctly and followed through completely.</li> <li>• Clearances are obtained and released in accordance with APM (<i>Accident Prevention Manual</i>).</li> <li>• Assistance is requested from or provided to other utilities when required.</li> <li>• Tools, vehicles and supplies are available and in working order.</li> </ul> | <ul style="list-style-type: none"> <li>• Ability to analyze fault, target and alarm information.</li> <li>• Knowledge of the system, equipment and district facilities.</li> <li>• Knowledge of effects of work and abnormal conditions on station and transmission grid reliability and availability.</li> <li>• Ability to set and change priorities and take action based on system requirements and emergency situation.</li> <li>• Knowledge of requirements of departments and personnel regarding emergencies, system problems and solutions.</li> <li>• Ability to troubleshoot system problems with no adverse impact on transmission system (BPA and customer).</li> <li>• Ability to identify and implement solutions to system problems.</li> <li>• Knowledge of station blueprints.</li> <li>• Knowledge of safe work practices and APM, <i>Work Standards</i>, pre-job briefing practices and PPE requirements and usage.</li> <li>• Knowledge of procedures to obtain and release clearances, and knowledge of APM.</li> <li>• General knowledge of customers' systems, safety and operating procedures and organizational structure applicable to the situation.</li> <li>• Knowledge of call-out procedures and how to procure and provide internal and external resources.</li> <li>• Knowledge of procedures for maintaining tools, vehicles and supplies.</li> <li>• Knowledge of substation and line sectionalizing disconnect locations.</li> <li>• Knowledge of BPA <i>Storm Response Incident Action Plan</i>.</li> </ul> | <ul style="list-style-type: none"> <li>• Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.</li> <li>• Distributes work assignments, matches talent to job and delegates responsibilities.</li> <li>• Actively participates in team activities, assists team members and works to improve team skills.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> </ul> |

## Job: Substation Operator

### Critical Work Function: B. Coordinate Work & Outage Planning

| KEY ACTIVITY   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|--|---|--|--|
| <b>B1.</b><br><i>Assist with significant equipment outage planning</i> | <ul style="list-style-type: none"> <li>• All equipment outage planning activities are completed within given time requirements.</li> <li>• Significant equipment outages are submitted as per appropriate Operating Bulletin.</li> <li>• Knowledge of the system, equipment and district facilities is kept up to date.</li> <li>• Crafts are consulted regarding their availability for the outage in an appropriate time frame.</li> <li>• Internal and external requests are reviewed and revised, and are submitted in accordance with policies and procedures.</li> <li>• Outages are consolidated whenever possible to minimize outage duration and frequency.</li> <li>• Customers are informed and consulted as appropriate to minimize negative impact.</li> <li>• Accurate input is provided to the planning process.</li> <li>• Coordination and communication with outage office is maintained in an effective manner.</li> <li>• Seasonal loading and system constraints are factored into outage requests in support of grid reliability.</li> <li>• Impacts of equipment outages to AGC (Automatic Generation Control) and RAS (Remedial Action Schemes) are communicated to Outage Office and other appropriate personnel.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of time requirements for significant equipment outage planning.</li> <li>• Knowledge of the outage scheduling system.</li> <li>• Knowledge of Operating Bulletin.</li> <li>• Knowledge of the system, equipment and district facilities.</li> <li>• Knowledge of other crafts' work practices and procedures.</li> <li>• Knowledge of outage request formats and procedures.</li> <li>• Knowledge of outage consolidation procedures.</li> <li>• Knowledge of customers' systems, safety and operating procedures and organizational structure.</li> <li>• Knowledge of the planning process.</li> <li>• Knowledge of the roles and concerns of the outage office.</li> <li>• Knowledge of seasonal loading and system constraints.</li> <li>• Knowledge of effects of equipment outage on transmission grid reliability, AGC and RAS.</li> </ul> | <ul style="list-style-type: none"> <li>• Summarizes, integrates and analyzes information.</li> <li>• Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.</li> <li>• Analyzes and responds to customer needs; obtains additional resources to meet customer needs; makes exceptional effort on behalf of customer.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Summarizes and translates mathematical data and manipulates formulas.</li> <li>• Determines system components to modify and improve; examines proposed modifications, improvements; analyzes goals and constraints.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|--|--|--|
| <p><b>B2.</b><br/><i>Perform district/system-wide outage coordination</i></p> | <ul style="list-style-type: none"> <li>• All activities with respect to outage coordination are completed within given time requirements.</li> <li>• Outages are submitted in accordance with appropriate operating bulletin.</li> <li>• Knowledge of the system, equipment and district facilities is kept up to date.</li> <li>• Crafts are consulted regarding their availability for the outage in an appropriate time frame.</li> <li>• Internal and external requests are reviewed and revised, and are submitted in accordance with policies and procedures.</li> <li>• Availability of operations manpower is checked and coordinated.</li> <li>• Outages are consolidated whenever possible to minimize outage duration and frequency.</li> <li>• Customers are informed and consulted as appropriate to minimize negative impact.</li> <li>• Accurate input is provided to the planning process.</li> <li>• Coordination and communication with outage office is maintained in an effective manner.</li> <li>• Seasonal loading and system constraints are factored into outage requests in support of grid reliability.</li> <li>• Impacts of equipment outages to AGC (Automatic Generation Control) and RAS (Remedial Action Schemes) are communicated to Outage Office and other appropriate personnel.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of time requirements for outage coordination.</li> <li>• Knowledge of the outage scheduling system.</li> <li>• Knowledge of operating bulletin.</li> <li>• Knowledge of the system, equipment and district facilities.</li> <li>• Knowledge of other crafts' work practices and procedures.</li> <li>• Knowledge of outage request formats and procedures.</li> <li>• Knowledge of outage-consolidation procedures.</li> <li>• Knowledge of customers' systems, safety and operating procedures and organizational structure.</li> <li>• Knowledge of the outage planning process.</li> <li>• Knowledge of the roles and needs of the outage office.</li> <li>• Knowledge of seasonal loading and system constraints.</li> <li>• Knowledge of effects of outages on transmission grid reliability, AGC and RAS.</li> <li>• Knowledge of resource availability issues and remedies.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Understands the system organization and hierarchy, follows processes and procedures, and recognizes the organizational system strengths and weaknesses.</li> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.</li> </ul> |

| <b>KEY ACTIVITY</b>                         | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|---|--|---|---|
| <b>B3.</b><br><i>Submit outage requests</i> | <ul style="list-style-type: none"> <li>• Authorization to submit is properly obtained.</li> <li>• Training is obtained to maintain competency of submitting and proposing personnel.</li> <li>• Outage requests are reviewed for accuracy and compliance with Work Standards, Operating Bulletins, APM (Accident Prevention Manual) and OTM (Operations Technical Manual).</li> <li>• Outage scheduling system (i.e. COMPASS -- Coordinated Outage Management, Planning, and Scheduling System) is accurate and updated in a timely manner, and includes all appropriate switching notes.</li> <li>• All appropriate personnel are included on outage form.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of outage scheduling system nomenclature, terminology and protocols.</li> <li>• Knowledge of editing and submittal process in outage scheduling system.</li> <li>• Knowledge of available training.</li> <li>• Knowledge of Work Standards, Operating Bulletins, APM (Accident Prevention Manual) and OTM (Operations Technical Manual).</li> <li>• Knowledge of outage request procedures and formats.</li> <li>• Ability to analyze and modify data in outage scheduling system.</li> <li>• Knowledge of impact of outages on other crafts and personnel.</li> </ul> | <ul style="list-style-type: none"> <li>• Interprets and applies new knowledge and experience, analyzes application of learning tools and investigates new learning techniques.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Effectively manages time; prepares and organizes multiple schedules and manages timelines.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Understands operation/interaction; manipulates technology for desired result; analyzes technology output; examines task/technology relationship.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|---|--|--|
| <p><b>B4.</b><br/><i>Coordinate outages with other entities</i></p> | <ul style="list-style-type: none"> <li>• Other entities are informed and consulted as appropriate to minimize negative impact.</li> <li>• Outage scheduling system is reviewed for opportunities to take advantage of customer-driven outages.</li> <li>• Needs of BPA customers, other utilities and generation sites are taken into account when scheduling outages.</li> <li>• Information is accurately given and received, is relevant and is timely.</li> <li>• Communication is concise, clear and conducted in a business-like manner.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of customer systems and understanding of impacts of outages on their systems.</li> <li>• Knowledge of customer terminology and work practices.</li> <li>• Ability to evaluate data in outage scheduling system.</li> <li>• Knowledge of needs of customers, other utilities and generation sites.</li> <li>• Knowledge of customers' safety and operating procedures and organizational structure applicable to the situation.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes and responds to customer needs; obtains additional resources to meet customer needs; makes exceptional effort on behalf of customer.</li> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Understands the system organization and hierarchy, follows processes and procedures, and recognizes the organizational system strengths and weaknesses.</li> <li>• Performs routine recordkeeping and reconciles accounts.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> </ul> |

| KEY ACTIVITY  | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|--|---|--|
| <p><b>B5</b><br/><i>Perform scheduling / planning for work that does not require outage</i></p> | <ul style="list-style-type: none"> <li>• Equipment work permit, hold orders or clearance is scheduled in accordance with BPA and customer policies and procedures.</li> <li>• Input on priorities is obtained from Chief Operators.</li> <li>• Priorities are set and changed as needed to meet the requirements of the system.</li> <li>• Crafts are consulted regarding their availability for the outage in an appropriate time frame.</li> <li>• Availability of operations manpower is ensured when scheduling work.</li> <li>• Emergencies and schedule changes are appropriately and effectively incorporated into the short range plan.</li> <li>• Requests for work are submitted in an appropriate time frame.</li> <li>• Work is consolidated whenever possible to maximize efficiency.</li> <li>• Coordination and communication with affected personnel is maintained in a timely manner.</li> <li>• Outage scheduling systems are correctly utilized when required.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of equipment work permit, hold orders and clearance scheduling policies and procedures.</li> <li>• Knowledge of the system, equipment and district facilities.</li> <li>• Ability to coordinate with other crafts.</li> <li>• Knowledge of construction schedules and maintenance schedules and reports.</li> <li>• Ability to manage a flexible work schedule.</li> <li>• Ability to adjust short range plan to meet emergencies and schedule changes.</li> <li>• Knowledge of work-consolidation practices.</li> <li>• Knowledge of other crafts' work practices or job duties.</li> <li>• Knowledge of the outage scheduling system.</li> <li>• Knowledge of effects of work on station and transmission grid reliability and availability.</li> <li>• Knowledge of the roles and concerns of the outage office, customers and other crafts.</li> <li>• Knowledge of customers' systems, safety and operating procedures and organizational structure applicable to the situation.</li> </ul> | <ul style="list-style-type: none"> <li>• Distributes work assignments, matches talent to job and delegates responsibilities.</li> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Effectively manages time; prepares and organizes multiple schedules and manages timelines.</li> <li>• Sets well defined goals, applies self management skills and appropriately modifies goals.</li> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> </ul> |

**Job: Substation Operator**

**Critical Work Function: C. Maintain a Safe Work Environment**

| KEY ACTIVITY   | <i>Performance Indicators</i><br>How do we know when the task is performed well?  | <i>Technical Knowledge</i><br>Skills, Abilities, Tools   | <i>Employability Skills</i><br>SCANS Skills and Foundational Abilities  |
|--|---|--|---|
| <p><i>C1.</i><br/><i>Provide safety training and participate in or chair safety meetings</i></p> | <ul style="list-style-type: none"> <li>• Training includes safety policies and procedures pertinent to reviews of near-misses and accidents.</li> <li>• Training is clear and concise and starts and ends on time.</li> <li>• Training builds on the organization's overall safety training program.</li> <li>• When chairing the meeting, safety meeting agenda is prepared in advance and safety meeting protocols are followed.</li> <li>• Safe and unsafe work practices are clearly communicated.</li> <li>• Participants are encouraged to engage in the training process.</li> <li>• All communications in trainings and meetings are respectful.</li> <li>• Appropriate training personnel/guest speakers are scheduled.</li> <li>• Questions are answered in a courteous and respectful manner.</li> <li>• Other crafts are invited to attend trainings appropriate to their job performance and career development.</li> <li>• Training has defined objectives which are based on job tasks.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of safety policies and procedures.</li> <li>• Knowledge of organization's safety training.</li> <li>• Knowledge of safe work practices.</li> <li>• General knowledge of other crafts' work practices and procedures.</li> <li>• Ability to identify safety training objectives.</li> <li>• Knowledge of training evaluation procedures.</li> <li>• Knowledge of the organization's safety goals and targets.</li> <li>• Knowledge of the organizational structure, roles and responsibilities with respect to safety.</li> <li>• Knowledge of where to obtain safety training materials.</li> </ul> | <ul style="list-style-type: none"> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Actively participates in discussion; presents complex ideas and information and analyzes group and individual response.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Actively participates in team activities, assists team members and works to improve team skills.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> <li>• Conducts task-specific training, coaches others to apply related concepts, provides constructive feedback and develops appropriate training procedures.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|--|--|--|---|
| <p><b>C2.</b><br/><i>Conduct safety inspections</i></p>                            | <ul style="list-style-type: none"> <li>• Potential hazards are correctly identified.</li> <li>• Inspection findings are accurately documented and tracked.</li> <li>• Corrective actions for safety deficiencies are taken.</li> <li>• Routine tests / inspections are conducted on safety equipment.</li> <li>• Inspections meet all applicable laws and regulations and BPA policies and procedures.</li> <li>• Inspections are thorough and are conducted on a regular basis.</li> <li>• Safety concerns are communicated to appropriate personnel effectively and in a timely manner.</li> <li>• Protocols are followed for OSHA (Occupational Safety and Health Administration) inspections.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of BPA procedures in the event of OSHA inspections.</li> <li>• Knowledge of potential hazards and how to recognize them.</li> <li>• Knowledge of logging and tracking procedures.</li> <li>• Ability to perform routine tests on safety equipment.</li> <li>• Knowledge of corrective actions for safety deficiencies.</li> <li>• Knowledge of BPA policies and procedures with respect to safety inspections.</li> <li>• Knowledge of location and contents of the Safety and Health Program Handbook and Accident Prevention Manual.</li> </ul> | <ul style="list-style-type: none"> <li>• Process/procedure, interprets charts and graphs and generates operation plan.</li> <li>• Monitors system performance, analyzes system operation, distinguishes trends in performance and diagnoses performance deviations.</li> <li>• Summarizes and synthesizes information.</li> <li>• Interprets and converts numerical data and predicts arithmetic results.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> </ul> |
| <p><b>C3.</b><br/><i>Document inspection results and regulatory compliance</i></p> | <ul style="list-style-type: none"> <li>• Documentation is performed according to agency policies and procedures.</li> <li>• Reports and appropriate records are input into database, filed and distributed to correct parties.</li> <li>• Reports and log books are accurate, legible and completed in a timely manner.</li> <li>• Documentation is relevant, understandable and accurate.</li> <li>• Correct terminology and abbreviations are used.</li> <li>• Log book is reviewed to keep current on substation conditions.</li> <li>• Current station hazards are accurately recorded.</li> </ul>   | <ul style="list-style-type: none"> <li>• Knowledge of power utility industry terminology, abbreviations and acronyms.</li> <li>• Knowledge of agency procedures and documentation protocols.</li> <li>• Knowledge of the pertinent items to log with respect to station conditions.</li> <li>• Knowledge of required documentation for each compliance requirement.</li> <li>• Knowledge of timeline requirements for documentation and reporting of inspection results.</li> </ul>  | <ul style="list-style-type: none"> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Interprets information and transfers information between formats.</li> <li>• Effectively manages time; prepares and organizes multiple schedules and manages timelines.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> </ul>  |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|--|--|--|
| <p><i>C4.</i><br/><i>Complete mandatory safety training</i></p> | <ul style="list-style-type: none"> <li>• Training and certification on relevant emergency, first aid and CPR procedures are complete and up to date.</li> <li>• Safety training and working demonstrations are attended with full participation.</li> <li>• Training needs are identified and communicated to Chief Operator in an effective and timely manner.</li> </ul> | <ul style="list-style-type: none"> <li>• Ability to use emergency equipment.</li> <li>• Ability to obtain and maintain certifications.</li> <li>• Knowledge of emergency policies and procedures.</li> </ul> | <ul style="list-style-type: none"> <li>• Sets well defined goals, applies self management skills and appropriately modifies goals.</li> <li>• Interprets and applies new knowledge and experience, analyzes application of learning tools and investigates new learning techniques.</li> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Defends own viewpoints, accepts responsibility for own behavior and understands own impact on others.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Interprets, clarifies and influences communication and compares multiple viewpoints.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|--|--|---|--|
| <p><b>C5.</b><br/><i>Direct emergency personnel</i></p>                | <ul style="list-style-type: none"> <li>• Equipment is properly isolated / cleared as required prior to fire fighters entering the substation.</li> <li>• Movements and actions of emergency personnel are monitored and controlled once they have entered an energized facility.</li> <li>• Annual orientation is conducted in an effective manner for local law enforcement and fire department personnel.</li> <li>• Emergency responses are executed in accordance with regulations.</li> <li>• Site emergency plans are periodically reviewed and are executed in accordance with regulations.</li> <li>• Appropriate departments, agencies and personnel are notified in correct priority and in a timely manner.</li> <li>• Electrical Contact Protocol cards are up to date and used when appropriate.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of switching and clearance procedures.</li> <li>• Knowledge of safety watcher requirements.</li> <li>• Knowledge of spill response plan and ability to execute it.</li> <li>• Knowledge of agency regulations regarding emergencies.</li> <li>• Knowledge of site emergency plan for substation.</li> <li>• Knowledge of communications protocols and industry terminology.</li> <li>• Knowledge of emergency phone numbers and address/locations within facilities.</li> <li>• Knowledge of Electrical Contact Protocol cards and procedures for using and maintaining them.</li> <li>• Ability to provide orientation to law enforcement and fire department personnel.</li> </ul> | <ul style="list-style-type: none"> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.</li> <li>• Distributes work assignments, matches talent to job and delegates responsibilities.</li> </ul> |
| <p><b>C6.</b><br/><i>Ensure compliance with safety regulations</i></p> | <ul style="list-style-type: none"> <li>• Safety rules and regulations are posted, supported and followed.</li> <li>• Deficiencies are followed up and appropriate action is taken in a timely manner in accordance with agency regulations.</li> <li>• Proper signs are posted in all locations in accordance with Standards and Guides.</li> <li>• Potential job hazards are accurately identified and clearly discussed prior to starting the job.</li> <li>• Proper PPE is utilized at all times as required.</li> <li>• Area Safety Manager / Safety Proctor is kept informed of all hazards and concerns, and is used as a resource as appropriate.</li> </ul>  | <ul style="list-style-type: none"> <li>• Ability to identify and correct and follow up on an unsafe condition.</li> <li>• Knowledge of reporting requirements.</li> <li>• Knowledge of safety rules and regulations.</li> <li>• Knowledge of the equipment, conditions and procedures for working safely in a substation.</li> <li>• Knowledge of procedures for taking corrective actions.</li> <li>• Knowledge of Operating Bulletins and Work Standards.</li> <li>• Ability to perform job hazard analysis.</li> <li>• Knowledge of PPE requirements and proper usage.</li> <li>• Knowledge of location and contents of the Safety and Health Program Handbook and Accident Prevention Manual.</li> </ul>                            | <ul style="list-style-type: none"> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Interprets and applies new knowledge and experience, analyzes application of learning tools and investigates new learning techniques.</li> </ul>   |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|---|---|---|---|
| <p><b>C7.</b><br/><i>Identify and report unsafe conditions and take corrective action</i></p> | <ul style="list-style-type: none"> <li>• Conditions that present a threat to health and safety are identified, reported, and documented promptly.</li> <li>• Appropriate parties are consulted about corrective actions.</li> <li>• Corrective actions are taken promptly according to agency procedures and are properly documented.</li> <li>• Follow-up procedures are conducted.</li> <li>• Work is stopped immediately if necessary.</li> <li>• Corrective actions are performed safely and all required PPE are properly utilized.</li> </ul> | <ul style="list-style-type: none"> <li>• Ability to identify an unsafe condition.</li> <li>• Knowledge of corrective actions and documentation procedures.</li> <li>• Knowledge of reporting procedures for unsafe conditions.</li> <li>• Knowledge of roles and responsibilities of personnel at BPA.</li> <li>• Knowledge of Operating Bulletins and Work Standards.</li> <li>• Ability to perform job hazard analysis.</li> <li>• Knowledge of PPE requirements and proper usage.</li> <li>• Knowledge of location and contents of the Safety and Health Program Handbook and Accident Prevention Manual.</li> </ul> | <ul style="list-style-type: none"> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Defends own viewpoints, accepts responsibility for own behavior and understands own impact on others.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> <li>• Understands the system organization and hierarchy, follows processes and procedures, and recognizes the organizational system strengths and weaknesses.</li> <li>• Actively participates in team activities, assists team members and works to improve team skills.</li> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|---|---|---|---|
| <p><b>C8.</b><br/><i>Perform testing and certification for control of entry</i></p> | <ul style="list-style-type: none"> <li>• Control of entry tests are administered as required for BPA personnel and contractors.</li> <li>• Test results are sent to appropriate personnel for recording in a timely manner.</li> <li>• Contractors and BPA personnel are provided with a substation orientation.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of procedures for administering control of entry tests and conducting substation orientations.</li> <li>• Knowledge of procedures for submitting test results.</li> <li>• Ability to provide substation orientation to contractors and BPA personnel.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Conducts task-specific training, coaches others to apply related concepts, provides constructive feedback and develops appropriate training procedures.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Understands the system organization and hierarchy, follows processes and procedures, and recognizes the organizational system strengths and weaknesses.</li> </ul> |

## Job: Substation Operator

### Critical Work Function: D. Perform Administrative Duties & Non-Electrical Plant Functions

| KEY ACTIVITY  | <i>Performance Indicators</i><br>How do we know when the task is performed well?   | <i>Technical Knowledge</i><br>Skills, Abilities, Tools  | <i>Employability Skills</i><br>SCANS Skills and Foundational Abilities  |
|---|--|---|---|
| <p><i>D1.</i><br/><i>Maintain records and reports</i></p>               | <ul style="list-style-type: none"> <li>• Records and reports are accurate and are filed in proper locations.</li> <li>• Records and reports are submitted in a timely manner to appropriate personnel and departments.</li> <li>• Records and reports are kept up to date.</li> <li>• Records and reports are maintained in accordance with all applicable policies, rules and regulations.</li> <li>• Document security and retention protocols are accurately followed in accordance with appropriate Operating Bulletin.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of reporting requirements for substations and districts.</li> <li>• Knowledge of policies, rules and regulations regarding records and reports.</li> <li>• Knowledge of document security and retention protocols.</li> <li>• Knowledge of Operating Bulletins.</li> </ul> | <ul style="list-style-type: none"> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Interprets information and transfers information between formats.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> <li>• Performs routine recordkeeping and reconciles accounts.</li> </ul> |
| <p><i>D2.</i><br/><i>Conduct annual personal property inventory</i></p> | <ul style="list-style-type: none"> <li>• All assigned equipment is successfully accounted for.</li> <li>• Upon request of Chief Operator, inventory is conducted annually and in accordance with agency policies.</li> <li>• Inventory is submitted to appropriate personnel and departments in a timely manner.</li> <li>• Inventory is accurate and complete.</li> </ul>   | <ul style="list-style-type: none"> <li>• Knowledge of program for personal property inventory.</li> <li>• Knowledge of policies regarding annual personal property inventory.</li> <li>• Knowledge of inventory submittal procedures.</li> <li>• Ability to identify equipment.</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Interprets information and transfers information between formats.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Utilizes integrated software, utilizes networks and manipulates information.</li> </ul>  |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|--|---|---|--|
| <p><i>D3</i><br/><i>Maintain tools, equipment and supplies</i></p> | <ul style="list-style-type: none"> <li>• Sufficient stocks of supplies are maintained.</li> <li>• Orders are placed in a timely manner.</li> <li>• Proper and accurate purchasing records are submitted in a timely manner.</li> <li>• Tools, equipment and supplies are kept in an orderly and accessible manner.</li> <li>• Maintenance is performed on tools and equipment as required.</li> <li>• Required forms and equipment are stocked in substation and all vehicles.</li> <li>• BES (Business Enterprise System) and p-card are used in a proper manner for ordering and purchasing parts and supplies when applicable.</li> <li>• Approvals are obtained for purchases.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of tool and equipment maintenance procedures.</li> <li>• Knowledge of forms, supplies, tools and equipment required for effective operation.</li> <li>• Knowledge of purchasing policies and procedures.</li> <li>• Knowledge of BES and p-card protocols.</li> <li>• Knowledge of District policies for purchase approval/authority.</li> </ul> | <ul style="list-style-type: none"> <li>• Maintains inventory, monitors safe and efficient utilization of materials and identifies future material needs.</li> <li>• Performs routine recordkeeping and reconciles accounts.</li> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Interprets and converts numerical data and predicts arithmetic results.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|--|---|--|--|
| <p><i>D4.</i><br/><i>Submit payroll, travel and leave data</i></p> | <ul style="list-style-type: none"> <li>• Timesheets are accurate and submitted in a timely manner.</li> <li>• Work orders are appropriately and accurately charged.</li> <li>• Travel expenses and authorization for travel are properly submitted for approval.</li> <li>• Leave slips are accurately filled out and submitted to the Chief Operator.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of procedures for charging to work orders.</li> <li>• Knowledge of payroll and travel approval and authorization procedures.</li> <li>• Knowledge of leave slip policies and procedures.</li> <li>• Knowledge of CPTC (Columbia Power Trades Council) agreement.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Summarizes and translates mathematical data and manipulates formulas.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> <li>• Understands operation/interaction; manipulates technology for desired result; analyzes technology output; examines task/technology relationship.</li> <li>• Sets well defined goals, applies self management skills and appropriately modifies goals.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|---|---|---|---|
| <p><i>D5.</i><br/><i>Report non-electrical plant deficiencies</i></p> | <ul style="list-style-type: none"> <li>• Maintenance concerns are communicated to appropriate personnel effectively and in a timely manner.</li> <li>• Required maintenance actions are correctly identified.</li> </ul>  | <ul style="list-style-type: none"> <li>• Knowledge of non-electric plant maintenance requirements and procedures.</li> <li>• Knowledge of non electric plant equipment.</li> </ul>  | <ul style="list-style-type: none"> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Evaluates performance of technology; analyzes failures.</li> <li>• Understands the system organization and hierarchy, follows processes and procedures, and recognizes the organizational system strengths and weaknesses.</li> <li>• Distributes work assignments, matches talent to job and delegates responsibilities.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> </ul> |
| <p><i>D6.</i><br/><i>Perform caretaking duties</i></p>                | <ul style="list-style-type: none"> <li>• Janitorial, landscaping, yard maintenance and herbicide functions are performed in an effective and efficient manner.</li> <li>• Housekeeping is maintained to ensure a clean and productive workplace.</li> <li>• Contractors are properly escorted in accordance with APM (Accident Prevention Manual).</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of janitorial, landscaping, yard maintenance and herbicide requirements and procedures.</li> <li>• Ability to identify caretaking and housekeeping deficiencies.</li> <li>• Knowledge of escort requirements and APM.</li> </ul> | <ul style="list-style-type: none"> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Maintains inventory, monitors safe and efficient utilization of materials and identifies future material needs.</li> <li>• Monitors system performance, analyzes system operation, distinguishes trends in performance and diagnoses performance deviations.</li> </ul>  |

**Job: Substation Operator**

**Critical Work Function: E. Coordinate Construction Projects**

| KEY ACTIVITY   | <i>Performance Indicators</i><br>How do we know when the task is performed well?   | <i>Technical Knowledge</i><br>Skills, Abilities, Tools  | <i>Employability Skills</i><br>SCANS Skills and Foundational Abilities   |
|--|--|---|--|
| <p><i>E1</i><br/><i>Facilitate release to operations process</i></p> | <ul style="list-style-type: none"> <li>• Progress of construction is accurately tracked.</li> <li>• Proper procedures are communicated to all parties involved.</li> <li>• Test of equipment is facilitated in an effective manner.</li> <li>• Station instructions are accurately updated and SERs (System Equipment Records) are created and submitted prior to release to operations.</li> <li>• Blueprints and technical manuals are received, checked to verify revisions, and properly filed.</li> <li>• Release to operations process is followed in accordance with appropriate Work Standard and APM (Accident Prevention Manual).</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of release to operations processes and procedures.</li> <li>• Ability to dialogue with the Construction Foreman and obtain information as to progress and issues.</li> <li>• Knowledge of equipment and equipment testing procedures and requirements.</li> <li>• Knowledge of station instructions and SERs, and how to update, create and submit them.</li> <li>• Knowledge of blueprints and technical manuals and filing protocols.</li> <li>• Knowledge of Work Standards and APM.</li> </ul> | <ul style="list-style-type: none"> <li>• Moderates discussion, interprets complaints and concerns and analyzes group dynamics.</li> <li>• Actively participates in team activities, assists team members and works to improve team skills.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Interprets and applies new knowledge and experience, analyzes application of learning tools and investigates new learning techniques.</li> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> </ul> |

| <b>KEY ACTIVITY</b>                                 | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|---|--|--|
| <i>E2.<br/>Participate in construction meetings</i> | <ul style="list-style-type: none"> <li>• Meetings are followed up with Project Manager.</li> <li>• Information is accurately given and received, is relevant and is timely.</li> <li>• Issues are thoroughly discussed and solutions are defined.</li> <li>• Communication is clear, concise and conducted in a business-like manner.</li> <li>• Proper terminology is used.</li> <li>• Participation of all is encouraged in an effective manner.</li> <li>• Affected customers are invited to construction meetings.</li> </ul> | <ul style="list-style-type: none"> <li>• Ability to coordinate with Project Manager.</li> <li>• Knowledge of other crafts' work practices and procedures.</li> <li>• Knowledge of the system, equipment and district facilities.</li> <li>• Knowledge of the use of outage scheduling system.</li> <li>• Knowledge of customer requirements and organizational systems.</li> <li>• Knowledge of industry, BPA, contractor and customer terminology.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes and responds to customer needs; obtains additional resources to meet customer needs; makes exceptional effort on behalf of customer.</li> <li>• Conducts task-specific training, coaches others to apply related concepts, provides constructive feedback and develops appropriate training procedures.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Actively participates in team activities, assists team members and works to improve team skills.</li> <li>• Establishes rapport with company-workers and customers; modifies behavior to environment; shows understanding for others and encourages cooperation and negotiation.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|--|--|--|--|
| <p><i>E3.<br/>Review PRD (Project Requirements Diagram) and provide feedback</i></p> | <ul style="list-style-type: none"> <li>• PRD is analyzed to ensure functionality of the project.</li> <li>• Feedback is clear and relevant.</li> <li>• Feedback is made in a timely and accurate manner to the correct parties.</li> <li>• Feedback is provided in writing or verbal suggestions and is followed up in writing.</li> <li>• PRD is analyzed sufficiently in advance of project to provide time for changes to be implemented.</li> <li>• PRD are maintained in an accessible manner.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of PRD.</li> <li>• Knowledge of the system, equipment and facilities.</li> <li>• Knowledge of roles and responsibilities of project personnel.</li> <li>• Knowledge of terminology and acronyms.</li> </ul> | <ul style="list-style-type: none"> <li>• Follows set of instructions, qualifies and analyzes information, interprets and summarizes information and researches to gain information.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.</li> <li>• Process/procedure, interprets charts and graphs and generates operation plan.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Determines system components to modify and improve; examines proposed modifications, improvements; analyzes goals and constraints.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?   | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|--|---|--|
| <p><i>E4.</i><br/><i>Facilitate return to construction status</i></p> | <ul style="list-style-type: none"> <li>• Outage is scheduled to separate equipment from the power system in accordance with BPA Work Standard.</li> <li>• Authorization request for return to construction status is reviewed and forwarded to Dispatch Manager.</li> <li>• Separation from power system is verified.</li> <li>• Signed authorization request is properly posted in the appropriate locations.</li> <li>• Crews are tracked to ensure that facility is not energized before work is complete.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of outage scheduling policies and procedures.</li> <li>• Knowledge of Standards and Guides and APM with respect to return to construction status.</li> <li>• Knowledge of authorization posting locations.</li> <li>• Knowledge of other crafts' work practices and procedures, and the ability to track crews.</li> </ul> | <ul style="list-style-type: none"> <li>• Adheres to standards, leads by example and motivates others to extend their capabilities.</li> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Interprets, clarifies and influences communication and compares multiple viewpoints.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Actively participates in team activities, assists team members and works to improve team skills.</li> </ul> |

## Job: Substation Operator

### Critical Work Function: F. Maintain an Environmentally-Conscious Work Place

| KEY ACTIVITY   | <i>Performance Indicators</i><br>How do we know when the task is performed well?   | <i>Technical Knowledge</i><br>Skills, Abilities, Tools   | <i>Employability Skills</i><br>SCANS Skills and Foundational Abilities   |
|--|--|--|--|
| <p><i>F1.</i><br/><i>Conduct environmental inspections</i></p> | <ul style="list-style-type: none"> <li>• Potential adverse conditions are correctly identified.</li> <li>• Inspection findings are accurately documented and tracked.</li> <li>• Corrective actions for adverse conditions are taken, and proper notifications are made upon completion.</li> <li>• Routine tests / inspections are conducted on all oil containment equipment in accordance with BPA policies and procedures.</li> <li>• Inspections meet all applicable laws and regulations.</li> <li>• Inspections are thorough and are conducted on a regular basis.</li> <li>• Environmental concerns are communicated to appropriate personnel effectively and in a timely manner.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of monitoring devices and how to read them.</li> <li>• Knowledge of environmental inspection procedures and reporting protocols.</li> <li>• Knowledge of environmental and safety laws and regulations regarding environmental inspections.</li> <li>• Knowledge of adverse conditions and corrective actions and their notification requirements.</li> <li>• Knowledge of oil containment equipment inspection requirements and procedures and documentation protocols.</li> <li>• Knowledge of the system, equipment and facilities.</li> <li>• Knowledge of equipment tests and inspections.</li> <li>• Knowledge of required licenses.</li> </ul> | <ul style="list-style-type: none"> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Establishes rapport with company-workers and customers; modifies behavior to environment; shows understanding for others and encourages cooperation and negotiation.</li> <li>• Pays attention to details, demonstrates initiative, monitors performance standards and follows up on assigned tasks.</li> <li>• Analyzes situations and information, considers risks and implications, compiles multiple viewpoints, and generates and evaluates alternative solutions.</li> <li>• Monitors system performance, analyzes system operation, distinguishes trends in performance and diagnoses performance deviations.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools  | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|---|---|--|
| <p><i>F2.</i><br/><i>Monitor and review spill plans and equipment</i></p> | <ul style="list-style-type: none"> <li>• SPCC (Spill Prevention, Control and Countermeasure) plans are reviewed and updated when equipment is installed or removed.</li> <li>• When revisions in SPCC are received from the Environmental Group, SPCCs are checked for accuracy and feedback is provided as necessary.</li> <li>• Spill response units are inspected and maintained.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of SPCC plans and requirements, and the location of the plans.</li> <li>• Knowledge of contents of spill response unit.</li> </ul> | <ul style="list-style-type: none"> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Maintains inventory, monitors safe and efficient utilization of materials and identifies future material needs.</li> <li>• Monitors system performance, analyzes system operation, distinguishes trends in performance and diagnoses performance deviations.</li> <li>• Understands the system organization and hierarchy, follows processes and procedures, and recognizes the organizational system strengths and weaknesses.</li> </ul> |

| <b>KEY ACTIVITY</b>   | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities   |
|---|---|--|--|
| <p><i>F3.</i><br/><i>Inventory and document hazardous materials and equipment</i></p> | <ul style="list-style-type: none"> <li>• Inventory is completed in accordance with SARA Title III (Superfund Amendment and Reauthorization Act).</li> <li>• Inventory is performed annually.</li> <li>• All crafts are consulted in the inventory process.</li> <li>• Communications with appropriate personnel are clear, effective and timely.</li> <li>• Inventory report is completed and submitted to Chief Operator.</li> <li>• Hazardous materials containers are checked to ensure they are properly labeled.</li> <li>• MSDS (Material Safety Data Sheet) are readily available and up to date.</li> <li>• All required documentation for storage and transportation of hazardous materials is accurately completed and submitted in a timely manner.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of hazardous materials and equipment inventory procedures.</li> <li>• Knowledge of SARA Title III.</li> <li>• Knowledge of other crafts' work practices and procedures.</li> <li>• Knowledge of inventory report requirements and procedures.</li> <li>• Knowledge of requirements for hazardous materials container labeling.</li> <li>• Knowledge of MSDS (Material Safety Data Sheet) and how to access and update them.</li> <li>• Knowledge of documentation for transportation and storage of hazardous materials.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes implications of decisions, recommends ethical course of action and responsibly challenges unethical practices and decisions.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Summarizes, integrates and analyzes information.</li> <li>• Establishes rapport with company-workers and customers; modifies behavior to environment; shows understanding for others and encourages cooperation and negotiation.</li> <li>• Interprets, clarifies and influences communication and compares multiple viewpoints.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> </ul> |

| <b>KEY ACTIVITY</b>  | <b>Performance Indicators</b><br>How do we know when the task is performed well?  | <b>Technical Knowledge</b><br>Skills, Abilities, Tools   | <b>Employability Skills</b><br>SCANS Skills and Foundational Abilities  |
|--|---|--|---|
| <p><i>F4</i><br/><i>Respond to environmental emergencies</i></p> | <ul style="list-style-type: none"> <li>• Mandatory hazardous materials / first responder training is completed each year.</li> <li>• Spills are controlled and mitigated in accordance with SPCC.</li> <li>• Documentation of skills is accurate, complete and thorough.</li> <li>• Emergency services personnel and/or outside agencies are contacted promptly as required.</li> <li>• Environmental emergencies are reported to appropriate agencies and personnel in a clear manner and within required timeframes.</li> <li>• Spill response units are utilized as required.</li> </ul> | <ul style="list-style-type: none"> <li>• Knowledge of hazardous materials / first responder training requirements and how to meet them.</li> <li>• Knowledge of SPCC and the ability to control and mitigate spills.</li> <li>• Knowledge of documentation required for spills.</li> <li>• Knowledge of contact information for emergency services personnel.</li> <li>• Knowledge of reporting requirements and timeframes for environmental emergencies.</li> <li>• Knowledge of location and contents of spill response units and how to use them.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyzes possible causes, generates and evaluates solutions and devises and implements plan of action.</li> <li>• Interprets and applies new knowledge and experience, analyzes application of learning tools and investigates new learning techniques.</li> <li>• Distributes work assignments, matches talent to job and delegates responsibilities.</li> <li>• Predicts outcomes, integrates multiple items of data, contrasts conflicting data, and researches additional information sources.</li> <li>• Monitors system performance, analyzes system operation, distinguishes trends in performance and diagnoses performance deviations.</li> <li>• Interprets and converts numerical data and predicts arithmetic results.</li> <li>• Records information accurately, creates original documents; summarizes and synthesizes information.</li> </ul> |