

LINEMAN SKILL STANDARDS

December, 2006

Research Conducted by:

Alan Hardcastle, Senior Research Associate
Social and Economic Sciences Research Center – Olympia
Washington State University
203 E. 4th Ave., Suite 521
P.O. Box 43170
Olympia, WA 98504-3170
Ph: 360-586-2277 Fax: 360-586-2279

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

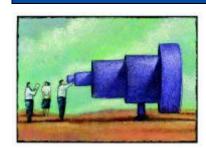
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Introduction



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.

National Alliance of Business

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

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 generation 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 generation 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 generation industry that face us today.

Pyramid of Competencies

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

Tier I

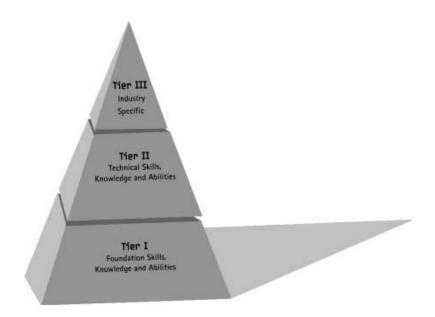
Tier I represents the broadest level of competencies, and is the set of employability (SCANS) skills, knowledge, abilities, and personal qualities required of all workers to be successful in today's workplace. These are the universal skills that are needed to apply technical knowledge and tools effectively.

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

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 had a minimum of three years experience in the job, although most had 12 or more years 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 wherever 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.

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

Thinking Skills

Creative Thinking Decision Making Problem Solving Visualization Knows/Learns Reasoning

Personal Qualities

Responsibility Self-worth Sociability Self-management Integrity/Honesty

Workplace Competencies

Utilizing Resources
Interpersonal Skills
Utilizing Information
Using Systems
Using Technology

The *ADVANCETM Workplace Standards Skill Inventory* from Advance Educational Spectrums, Inc. was used to capture industry views on foundation skills for power generation workers. Industry professionals ranked the SCANS skill levels required.¹



Sample survey questions from the Advance Workplace Standards Skill Inventory

¹ 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 generation. 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.

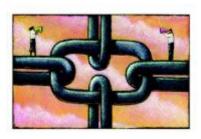
Skills refer to proficiency in an applied activity. This activity could be physical, mental, or interpersonal in nature.

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 Lineman



Summary of Critical Work Functions and Key Activities

Skill Standards

Bonneville Power Administration **Lineman**

Critical Work Functions	Key Activities							
A. Construct, Maintain and Repair Transmission System Components	A1 Perform preventive maintenance	A2 Construct transmission system components	A3 Construct and maintain communication system components	A4 Perform troubleshooting and respond to system emergencies	A5 Perform corrective maintenance	A6 Gather tools, equipment and supplies	A7. Operate rolling / mobile equipment	A8. Operate line equipment
B. Perform inspections	B1. Perform working patrol	B2. Investigate outages	B3 Perform structural inspections	B4 Document inspections				
C. Perform Right of Way Maintenance Work	C1. Maintain environmental compliance	C2. Manage vegetation control	C3. Manage erosion control and maintain access roads	C4. Install and maintain ROW* gates *Right of Way	C5 Operate and drive equipment			
D. Maintain Tools, Equipment and Supplies	D1 Maintain and inspect tools and supplies	D2 Maintain vehicles and stock						
E. Perform Administrative Duties	E1 Verify and update patrol data, reference materials and reports	E2 Maintain and obtain proficiency in current and new technologies						

Critical Work Functions	Key Activities						
F. Communicate with Co-Workers to Promote Safety and Productivity	F1 Participate in meetings and problem solving groups	F2 Communicate safety and job- specific needs	F3 Communicate and coordinate with Foreman and co-workers	F4 Communicate with land owners and public	F5 Assist in training apprentices in all work functions		
G. Maintain A Safe Work Environment	G1 Participate in safety meetings	G2 Identify and report unsafe conditions and take corrective actions	G3 Participate in or lead job briefings	G4 Obtain and maintain licenses and certifications			

Job: Lineman Critical Work Function: A. Construct, Maintain and Repair Transmission System Components

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A1 Perform preventive maintenance	 Safety procedures are discussed and followed and proper personal protective equipment is utilized at all times. Preventive maintenance requirements are met and are completed in an effective and timely manner. When they exist, preventive maintenance standards and guides are followed. Maintenance tasks are documented according to agency policies and procedures. Documentation is turned in to the correct parties for processing and findings are communicated to appropriate personnel effectively and in a timely manner. Revisions to maintenance plans are communicated to appropriate personnel effectively and in a timely manner. Preventive maintenance is completed with no adverse impact on power system. All applicable certifications and licenses are maintained. 	 Knowledge of transmission system components. Ability to read and interpret specifications and recommendations based on prints and drawings. Knowledge of BPA transmission line preventive maintenance processes and procedures. Knowledge of Standards and Guides. Ability to safely perform preventive maintenance with no adverse impact on power system. Knowledge of correct use of PPE (personal protective equipment) requirements. Knowledge of documentation policies and procedures. Knowledge of transmission system construction / maintenance materials and tools. Knowledge of how and why components and parts fail and how to prevent it. Ability to climb poles (65-110 feet) and towers (up to 545 feet) in all weather conditions. Ability to ride wire. Ability to evaluate loads and weights to determine rigging. Ability to evaluate structural integrity. Ability to operate and drive heavy equipment and specialized equipment such as snow cats, ATVs, etc. Working knowledge of the APM (Accident Prevention Manual). Ability to maintain licenses and certifications. 	 Maintains good balance on narrow and slippery surfaces at heights and in varied weather conditions. Efficiently manages time, prioritizes daily tasks, prepares schedule and monitors and adjusts task sequence. Prepares basic summaries and integrates information. Follows specified maintenance schedules, identifies symptoms, corrects malfunctions and troubleshoots failures. Identifies system discrepancies, adjusts system operation, monitors system performance and troubleshoots system failures. Suggests system modifications and improvements and determines system components to be improved. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A2 Construct transmission system components	 Safety procedures are discussed and followed and proper personal protective equipment is utilized at all times. Construction of system components is performed safely and in accordance with prints and drawings. Input is provided for development of plan of action. Installation and removal of equipment and components are completed to specifications and in a timely manner. Work plan is implemented in an effective manner and input is provided for modification of work plan as required. Construction is completed with no adverse impact on the power system. Construction materials are used efficiently. Foreman is informed as to inventory quantities and re-orders required. Safety and equipment issues are communicated to Foreman effectively and in a timely manner. 	 Knowledge of work standards and guides, industry safety standards and BPA APM (Accident Prevention Manual). Knowledge of correct use of personal protective equipment and PPE (personal protective equipment) requirements. Knowledge of prints and drawings. Knowledge of BPA transmission line construction processes and procedures. Knowledge of transmission system components. Ability to understand and follow manufacturers' equipment specifications and recommendations. The ability to locate necessary information. Knowledge of manufacturer, equipment and system terminology. Knowledge of transmission system construction materials and tools. Ability to climb poles (65-110 feet) and towers (up to 545 feet) in all weather conditions. Ability to ride wire. Ability to calculate loads and weights to determine rigging. Ability to evaluate structural integrity. Ability to operate and drive heavy equipment and specialized equipment such as snow cats, ATVs, etc. Knowledge of survey equipment and procedures. Knowledge of stringing, sagging, clipping, footing setting, spacing, assembly and erection procedures. 	 Maintains good balance on narrow and slippery surfaces at heights and in varied weather conditions. Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Understands technology applications, follows proper procedures and manipulates technology to achieve desired results. Understands the requirements of the task and technological results, and analyzes task/technology relationship. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A3 Construct and maintain communication system components	 Safety procedures are discussed and followed and proper personal protective equipment is utilized at all times. Construction and maintenance of system components are performed safely and in accordance with prints and drawings. Input is provided for development of plan of action. Installation and removal of equipment and components are completed to specifications and in a timely manner. Work plan is implemented in an effective manner and input is provided for modification of work plan as required. Construction and maintenance tasks are completed with no adverse impact to customers or BPA. Construction and maintenance materials are used efficiently. Foreman is informed as to inventory quantities and re-orders required. Safety and equipment issues are communicated to Foreman effectively and in a timely manner. Antennas work properly after construction. 	 Knowledge of work standards and guides, industry safety standards and BPA APM (Accident Prevention Manual). Knowledge of personal protective equipment, including radio frequency detector, goggles and light detector. Knowledge of potential hazards of radio waves and microwaves. Knowledge of prints and drawings. Knowledge of BPA communication system construction and maintenance processes and procedures. Knowledge of communication and transmission system components. Ability to locate, understand and follow BPA and manufacturers' equipment specifications and recommendations. Knowledge of manufacturer, equipment and system terminology. Knowledge of communication system construction and maintenance materials. Knowledge of communication system construction and maintenance tools such as fiber fusion splicer, cleaver and OTDR (Optical Time Domain Reflectometer). Ability to climb poles (65-110 feet) and towers (up to 545 feet) in all weather conditions. Ability to calculate loads and weights to determine rigging. Ability to evaluate structural integrity. Ability to operate and drive heavy equipment and specialized equipment such as snow cats, ATVs, etc. Knowledge of survey equipment and procedures. Ability to construct antennas on elevated structures. 	 Maintains good balance on narrow and slippery surfaces at heights and in varied weather conditions. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Follows specified maintenance schedules, identifies symptoms, corrects malfunctions and troubleshoots failures. Understands technology applications, follows proper procedures and manipulates technology to achieve desired results. Understands the requirements of the task and technological results, and analyzes task/technology relationship. Utilizes previous training and experience to predict outcomes; visually analyzes relationship between parts/whole and process/procedure and interprets charts, graphs and symbols.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A4 Perform troubleshooting and respond to system emergencies	 Safety procedures are discussed and followed and proper personal protective equipment is utilized at all times. One-lines, plans and profiles, engineering standards, and construction data books are used as necessary. Fault and target information is accurately utilized. Procedures for isolating problems are initiated correctly and followed through completely. Lines are patrolled thoroughly and in a timely manner. System problems are responded to and resolved in an effective and timely manner. Damage assessment is accurate and complete and reported to Foreman clearly and in a timely manner. Damage is controlled and minimized, including public safety concerns. Tools and rolling stock are available and in working order. Equipment specific to the line is loaded prior to responding. Foreman and/or Dispatch are notified of system problems in an effective and timely manner. In emergencies, switching is performed correctly. 	 Knowledge of the power transmission system and how it impacts other systems, such as customers' systems. Ability to perform troubleshooting with no adverse impact on transmission system (BPA and customers). Knowledge of normal and abnormal system functionality. Knowledge of transmission system components. Knowledge of safety procedures and personal protective equipment. Knowledge of troubleshooting processes. Knowledge of one-lines, plans and profiles, prints and drawings, construction data books. Knowledge of access to lines, historic line conditions, gun/animal areas, current activities around the line, contractor activity around the line, ice loading. Knowledge of typical system problems and solutions. Ability to perform damage assessment and control damage. Knowledge of transmission system construction and maintenance materials and tools. Knowledge of procedures for maintaining emergency stock, tools and rolling stock. Knowledge of equipment specific to each line. Knowledge of radio equipment and protocols. Knowledge of call out procedure. Ability to climb poles (65-110 feet) and towers (up to 545 feet) in all weather conditions. Ability to calculate loads and weights to determine rigging. Ability to evaluate structural integrity. Ability to operate and drive heavy equipment and specialized equipment such as snow cats, ATVs, etc. Working knowledge of the APM (Accident Prevention Manual). Knowledge of switches and switch procedures. 	 Maintains good balance on narrow and slippery surfaces at heights and in varied weather conditions. Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations. Recognizes job tasks and distributes work assignments. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Selects relevant data, identifies the need for data, predicts outcomes and analyzes data. Analyzes possible causes of problems, recommends action plan and generates solutions. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A5 Perform corrective maintenance	 Safety procedures are discussed and followed and proper personal protective equipment is utilized at all times. Work is performed in accordance with Standards and Guides when they exist. Foreman and/or Dispatch are kept informed of repair progress and new information about condition of equipment and repairs needed. Transmission system components are correctly repaired or replaced as necessary. During repair process, components are thoroughly inspected to identify other repair needs. Replaced parts are properly disposed of and used stock is reported to foreman. Workplan is implemented in an effective manner. 	 Knowledge of Standards and Guides, safety procedures and personal protective equipment. Knowledge of transmission system components. Knowledge of specifications of system components to be repaired, and manufacturers' recommended procedures. Ability to identify the root cause of malfunctions. Knowledge of proper disposal for parts and hazardous materials. Knowledge of job briefing requirements and procedures. Knowledge of transmission system corrective maintenance processes and procedures Knowledge of transmission system construction and maintenance materials, parts and tools. Knowledge of typical transmission system repairs. Ability to implement repair work plans. Knowledge of how and why components and parts fail and how to repair them. Ability to climb poles (65-110 feet) and towers (up to 545 feet) in all weather conditions. Ability to ride wire. Ability to evaluate loads and weights to determine rigging. Ability to evaluate structural integrity of poles and towers. Ability to operate and drive heavy equipment and specialized equipment such as snow cats, ATVs, etc. Working knowledge of the APM (Accident Prevention Manual). Ability to maintain licensure and certifications. Ability to reference wire chart. Ability to access TLM Apps (transmission line maintenance application) to obtain information on access and road conditions. 	 Maintains good balance on narrow and slippery surfaces at heights and in varied weather conditions. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Suggests system modifications and improvements and determines system components to be improved. Interprets and applies new knowledge and experience and analyzes application of learning tools.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A6 Gather tools, equipment and supplies	 Special tools, parts and equipment are located in a timely manner. Repaired parts are checked to ensure they meet specifications. If a part is not available, Foreman is informed. All required tools, equipment and supplies for the job are assembled at the job site. Tools and equipment are checked to ensure they are certified and in good/safe working order. 	 Knowledge of tool terminology and the locations of tools, parts and equipment. Knowledge of specialized tools required for specific jobs. Knowledge of different types of materials and parts and their applications. Knowledge of transmission system construction / maintenance materials and tools. Ability to prepare and organize relevant materials and tools prior to job site work. Ability to use prior documentation for preparing for and organizing work. Knowledge of established policies and procedures regarding tools, equipment and supplies. Knowledge of tool certification, calibration and safe working condition. 	 Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Maintains self control, accepts constructive criticism, sets well defined/realistic goals and demonstrates commitment to self improvement. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy. Understands the requirements of the task and technological results, and analyzes task/technology relationship. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
A7. Operate rolling / mobile equipment	 Proper endorsement, license and authorization requirements are maintained. Equipment is operated safely, in accordance with all applicable laws and regulations. Pre-trip inspection is thoroughly checked to ensure it has been followed. Proper training and certification for operating has been obtained. All required permits are in hand. Vehicles are properly utilized. Routes are taken which have capacity for heavy equipment when possible. Vehicle weight is not over GVWR (Gross Vehicle Weight Rating), and required permits are obtained prior to moving equipment if vehicle exceeds GVWR. 	 Knowledge of and ability to obtain licenses certifications and authorizations. Knowledge of safe equipment operation and manufacturers' specifications. Knowledge of BPA safety policies and equipment operation procedures. Knowledge of pre-trip inspection procedures. Ability to locate information on road restrictions and routes. Knowledge of load capacities and weight restrictions of vehicles and load restriction limits. Ability to successfully drive equipment on rough terrain. Knowledge of GVWR, and procedures for permits if equipment is over-weight. 	 Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Selects relevant data, identifies the need for data, predicts outcomes and analyzes data. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints.
A8. Operate line equipment	 Safety procedures are followed, and personal protective equipment is worn in accordance with all applicable BPA policies and procedures and OSHA (Occupational Safety and Health Administration). Proper training and certification for operating and rigging is obtained and maintained. Rigging requirements are followed. Load charts and equipment specifications/capacity information are referred to as necessary. 	 Knowledge of BPA safety policies, APM (Accident Prevention Manual) and equipment operation procedures. Knowledge of and ability to apply proper rigging techniques. Knowledge of and ability to obtain required certifications and authorization. Ability to operate equipment safely in accordance with manufacturers' specifications. Knowledge of load charts, equipment specifications and capacity information, and the ability to apply it to a given job. Knowledge of personal protective equipment and safety laws and regulations. Ability to interpret hand signals. 	 Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Uses mathematical formulas / processes and summarizes mathematical data. Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Performs basic computations and measurements, converts numerical data and predicts arithmetic results. Selects relevant data, identifies the need for data, predicts outcomes and analyzes data. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment.

Job: Lineman Critical Work Function: B. Perform Inspections

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
B1. Perform working patrol	 Inspections are performed in accordance with SPIFs (Standard Procedure, Information, and Instruction Procedures). Potential vegetation hazards are correctly identified. Prior to leaving on patrol, workload checklist, aerial maps (when applicable) property owner list (when applicable), plan and profile and helicopter reports are consulted in order to prepare for work to be completed. PC (personal computer) is updated and standard tools and equipment are loaded prior to leaving on patrol. Findings are documented in accordance with BPA policies and procedures and are reported to Foreman (or other designated personnel). Encroachments are identified, inspected and reported. Property owners are contacted prior to entering their property. Brush, trees, right of way roads, culverts, ditches, structure access and encroachment are thoroughly inspected. SCIBFO (shell rot, cracks, insects, birds and animals, fire, other) are correctly identified. Structures are checked for signs of vandalism. Trouble spots are identified, and small problems are repaired while on patrol. Data is input to TLM Apps (transmission line maintenance application) via TLM Field accurately and in a timely manner. 	 Knowledge of SPIFs regarding inspections. Knowledge of vegetation hazards. Knowledge of workload checklist, aerial maps, property owner list, plan and profile and helicopter reports. Ability to update PC. Knowledge of standard tools and equipment. Knowledge of inspection / patrol documentation procedures and requirements. Knowledge of encroachments. Knowledge of rules and laws regarding access to private property. Knowledge of normal and abnormal conditions for brush, trees, right of way roads, culverts, ditches, structure access and encroachment. Knowledge of signs of vandalism on structures. Ability to navigate TLM Field and update data in TLM Apps. Knowledge of the lines in the area. Ability to identify trouble spots and perform small repairs while on patrol. 	 Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Efficiently manages time, prioritizes daily tasks, prepares schedule and monitors and adjusts task sequence. Records information accurately, completes forms and writes simple documents. Identifies system discrepancies, adjusts system operation, monitors system performance and troubleshoots system failures. Interprets information and applies processes to new information. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Demonstrates honesty and trustworthiness, accepts responsibility for own behavior and analyzes implications of decisions. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Conducts task-specific training, coaches others to apply related concepts and provides constructive feedback/reinforcement.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
B2. Investigate outages	 Instructions from Foreman are correctly followed. Communication is constantly maintained with Foreman and crew. Cause of outage is correctly identified. Potential causes are predicted when possible. 	 Knowledge of transmission system components. Knowledge of causes of outages such as flashed insulators, broken arms, worn hardware, etc. Knowledge of current and typical activities near the system such as logging fringe, possible land slide areas, diseased trees, etc. Knowledge of radio equipment and local repeaters in District and protocols. Knowledge of lines in the area. 	 Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy. Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations. Selects relevant data, identifies the need for data, predicts outcomes and analyzes data. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Analyzes possible causes of problems, recommends action plan and generates solutions. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
B3. Perform structural inspections	 SPIFs (Standard Procedure, Information, and Instruction Procedures) / Standards and Guides are followed regarding structural inspections. Sights and sounds of equipment are observed and evaluated. Structures are inspected for deformities from ground movement. Sonic tests are accurately performed on poles. SCIBFO (shell rot, cracks, insects, birds and animals, fire, other) are correctly identified. Structures are checked for signs of vandalism. Ground line heart rot inspections are correctly performed. When required, climbing is properly and safely performed. Safety procedures are discussed and followed and proper personal protective equipment is utilized at all times. Hazardous materials protocols are followed. 	 Knowledge of SPIFs regarding structural inspections. Knowledge of normal and abnormal appearance and sounds of structures. Knowledge of deformities caused by ground movement. Knowledge of sonic tests on poles. Knowledge of SCIBFO. Knowledge of signs of vandalism. Knowledge of ground line heart rot inspections. Knowledge of safety procedures and personal protective equipment. Knowledge of hazardous materials protocols. Ability to climb and maneuver on structures safely. Ability to climb poles (65-110 feet) and towers (up to 545 feet) in all weather conditions. Ability to operate and drive mobile equipment and specialized equipment such as snow cats, ATVs, etc. 	 Maintains good balance on narrow and slippery surfaces at heights and in varied weather conditions. Suggests system modifications and improvements and determines system components to be improved. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Utilizes previous training and experience to predict outcomes; visually analyzes relationship between parts/whole and process/procedure and interprets charts, graphs and symbols.
B4 Document inspections	 Documentation is performed according to agency and district policies and procedures. Documents and appropriate files are input into database, filed, or distributed to correct parties. Database and maps are accurately updated to reflect work completed and/or current conditions. Inspection results are accurately documented and documentation legible and completed in a timely manner. TLM Apps (transmission line maintenance application) is used as required. 	 Knowledge of documentation policies and procedures. Ability to navigate TLM Field and update data in TLM Apps. Knowledge of how documentation is used by other BPA departments and employees. Knowledge of inspection and test result documentation procedures. Ability to update maps. 	 Records information accurately, completes forms and writes simple documents. Understands computer operation, performs basic data entry and retrieves sorted data. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Interprets information and applies processes to new information.

Job: Lineman Critical Work Function: C. Perform Right of way Maintenance Work

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
C1. Maintain environmental compliance	 Regulations protecting the environment are followed. Herbicide reports are properly completed and submitted. 	 Knowledge of regulations protecting the environment. Knowledge of herbicide reporting procedures. 	 Demonstrates honesty and trustworthiness, accepts responsibility for own behavior and analyzes implications of decisions. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Defends own viewpoints and accepts constructive criticism. Conducts task-specific training, coaches others to apply related concepts and provides constructive feedback/reinforcement. Prepares basic summaries and integrates information.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
C2. Manage vegetation control	 Herbicide reports are properly completed and submitted. Herbicides are properly used in accordance with manufacturer's usage instructions. Annual training is attended and certifications are maintained when required. Chainsaws and mowers are used safely. Contractor work is thoroughly inspected when applicable. Need for clearance or hold order is communicated to Foreman. Hold order or clearances are held and managed in accordance with APM (Accident Prevention Manual). Crew and contractors are completely and accurately informed as to the status of the line. Danger trees and high brush are properly identified and reported. Vegetation is managed in accordance with the SPIFs (Standard Procedure, Information, and Instruction Procedures). Data is input to TLM Apps (transmission line maintenance application) via TLM Field accurately and in a timely manner. Trees are safely and correctly climbed, rigged, pruned and felled. 	 Knowledge of herbicide reporting procedures Knowledge of use of herbicides and MSDS (Material Safety Data Sheets). Knowledge of herbicide and vegetation terminology. Ability to obtain and maintain herbicide certification, when required. Knowledge of chainsaws and mowers and how to use them safely. Knowledge of vegetation control requirements. Knowledge of clearance and hold order procedures. Ability to hold and manage hold orders and clearances. Knowledge of APM and SPIFs and ability to recognize personal protective equipment such as chaps, ear plugs, and safety glasses. Ability to identify and report danger trees and high brush. Ability to navigate TLM Field and update data in TLM Apps. Knowledge of transmission system components. Knowledge of BPA transmission line construction and maintenance processes and procedures. Knowledge of the identity of the NRS (Natural Resources Specialist) in the area and how to contact him/her. Ability to climb, rig and fall trees. Knowledge of tree pruning. Knowledge of characteristics of trees, growth factor, brittleness, etc. 	 Conducts task-specific training, coaches others to apply related concepts and provides constructive feedback/reinforcement. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
C3. Manage erosion control and maintain access roads	 Silt in streams is minimized and hillsides and banks are properly sloped and compacted. ROW (Right of Way) gates are requested when necessary and are properly installed and maintained. Ditches, culverts and water bars are correctly constructed or installed to direct water to minimize erosion. Excavated areas are properly reseeded. Natural Resource Specialist and/or Environmental Officer are consulted prior to working in sensitive areas such as T&E (Threatened and Endangered) streams, wetlands and hillsides. SPIFs (Standard Procedure, Information, and Instruction Procedures) are consulted as necessary. Conditions are accurately reported to Foreman in a timely manner. Data is input to TLM Apps (transmission line maintenance application) via TLM Field accurately and in a timely manner, including directions to access roads. Debris is properly cleared and disposed of and geo-textiles are installed as required to stabilize hillsides and road beds. Mobile equipment is operated safely including dump trucks, graders, back hoes, and cats. Legal access is identified via survey when required. Trouble spots are identified, and small problems are repaired while on patrol. Finger boards are properly installed. 	 Knowledge of silt minimization techniques. Knowledge of sloping and compacting procedures and requirements. Knowledge of procedure to request ROW gates. Knowledge of ditch, culvert, and water bar construction and installation procedures and requirements. Knowledge of debris clearing and reseeding procedures and requirements. Ability to identify sensitive areas. Knowledge of SPIFs. Knowledge of normal and abnormal conditions with respect to erosion and roads. Ability to navigate TLM Field and update data in TLM Apps. Knowledge of uses and procedures for installing geo-textiles. Knowledge of and ability to operate equipment such as dump trucks, graders, back hoes and cats. Knowledge of methods available to determine legal access and/or land ownership. Ability to identify trouble spots and correct them. Knowledge of use and installation of finger boards. Knowledge of transmission system components. Knowledge of BPA transmission line construction and maintenance processes and procedures. 	 Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Utilizes previous training and experience to predict outcomes; visually analyzes relationship between parts/whole and process/procedure and interprets charts, graphs and symbols. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Conducts task-specific training, coaches others to apply related concepts and provides constructive feedback/reinforcement. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Understands negotiation process, identifies conflicts, demonstrates composure and interprets concerns. Uses tools and materials and tools in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Efficiently manages time, prioritizes daily tasks, prepares schedule and monitors and adjusts task sequence. Selects relevant data, identifies the need for data, predicts outcomes and analyzes data.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
C4. Install and maintain ROW* gates *Right of Way	 Repairs are completed effectively and in a timely manner. Non-repairable gates are reported in the database. Equipment is operated safely, including boom truck and back hoe. Locates are obtained prior to starting work. Gates are located with the assistance of plan and profile and information from Real Estate Department, to ensure it is on the right of way. SPIFs (Standard Procedure, Information, and Instruction Procedures) are followed. Property owners are consulted when appropriate. Fence encroachments are correctly identified and properly reported. Flagging and other safety procedures are followed. Safety procedures are discussed and proper personal protective equipment is utilized at all times. 	 Knowledge of gate repair procedures. Knowledge of non-repairable gate reporting procedures. Knowledge of and ability to operate equipment including boom truck, cat and back hoe. Knowledge of when a locate is required and the ability to locate and call for locates. Knowledge of plan and profile and Real Estate Department information and the ability to apply them to the installation of gates. Knowledge of SPIFs. Knowledge of property owner issues and concerns. Ability to identify encroachments and knowledge of encroachment reporting procedures. Knowledge of flagging and other safety procedures and personal protective equipment. 	 Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Utilizes previous training and experience to predict outcomes; visually analyzes relationship between parts/whole and process/procedure and interprets charts, graphs and symbols. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards.
C5 Operate and drive equipment	 Proper endorsement, license and authorization requirements are maintained. Equipment is operated safely, in accordance with all applicable laws and regulations. Pre-trip inspection is thoroughly checked to ensure it has been followed. Proper training and certification to operate each piece of equipment has been obtained. Safety procedures are followed, and personal protective equipment is worn in accordance with all applicable BPA policies and procedures and OSHA (Occupational Safety And Health Administration). 	 Ability to successfully drive equipment on rough terrain. Ability to obtain endorsements, licenses, and certifications. Knowledge of safety procedures, laws and regulations. Knowledge of personal protective equipment. Ability to conduct pre-trip inspections. Knowledge of certifications required for each piece of equipment. 	 Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Selects relevant data, identifies the need for data, predicts outcomes and analyzes data.

Job: Lineman Critical Work Function: D. Maintain Tools, Equipment and Supplies

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
D1 Maintain and inspect tools and supplies	 Tools and equipment are checked and correctly tested to ensure they are in safe and proper working order. Procedures regarding nonfunctioning tools and equipment are followed. Information regarding broken tools and equipment is communicated to appropriate personnel effectively and in a timely manner. Calibration tags are checked to verify if calibration is needed. Supplies are stocked and maintained. Rigging is properly inspected and maintained. Pre start-up checks/inspections are thoroughly performed. The correct checklists are used properly. Safety procedures are followed. Equipment malfunctions and readiness are communicated to appropriate personnel effectively and in a timely manner. 	 Knowledge of tool and equipment terminology and the locations of tools, parts and equipment. Knowledge of calibration tags. Ability to properly inspect tools and submit nonfunctional tools for repair. Knowledge of established policies and procedures regarding tools. Knowledge of rigging. Knowledge of tools and equipment function and use. Knowledge of approved company and manufacturers inspection procedures and specifications including WSHA (Washington State Safety and Health Administration) and OSHA (Occupational Safety and Health Administration). Knowledge of pre start-up checklists and how to use them. Knowledge of tests to ensure tools and equipment are in good and safe working order. Knowledge of SPIFs (Standard Procedure, Information, and Instruction Procedures) and APM (Accident Prevention Manual). 	 Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Demonstrates honesty and trustworthiness, accepts responsibility for own behavior and analyzes implications of decisions. Follows specified maintenance schedules, identifies symptoms, identifies and corrects malfunctions and troubleshoots failures.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
D2 Maintain vehicles and stock	 Vehicle is in good working order and scheduled maintenance is consistently performed. Vehicle safety equipment is available and upto-date. Repeater maps are in the vehicle. Adequate tools, equipment and materials are present for everyday use or scheduled work. Standards and guides for vehicle use are followed. Truck bins are properly stocked and maintained in an orderly manner. Vehicle fuel is maintained on a daily basis. Vehicle weight is not over GVWR (Gross Vehicle Weight Rating) Information regarding missing, broken or depleted safety equipment and standard tools is communicated to appropriate personnel effectively and in a timely manner. 	 Knowledge of characteristics of a vehicle in good working order or in need of repair. Knowledge of scheduled maintenance for vehicles and how to obtain it. Knowledge of vehicle safety equipment. Ability to determine if safety equipment is upto-date. Knowledge of tools equipment and materials required for everyday use or a scheduled job. Knowledge of Standards and Guides. Knowledge of stock required for tools bin. Ability to ensure that vehicles are refueled daily. Knowledge of GVWR. Ability to inspect safety equipment and standard tools, and communicate inspection information to supervisor. Ability to locate repeater maps. 	 Follows specified maintenance schedules, identifies symptoms, corrects malfunctions and troubleshoots failures. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Uses tools and materials in a safe and efficient manner and maintains and acquires job specific supplies and equipment. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities.

Job: Lineman Critical Work Function: E. Perform Administrative Duties

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
E1 Verify and update patrol data, reference materials and reports	 Data is input to TLM Apps (transmission line maintenance application) via TLM Field accurately and in a timely manner. Reports are accurate and submitted in a timely manner to appropriate personnel and departments. Sensitive documents are secured in accordance with BPA policies and procedures. 	 Ability to navigate TLM Field and update data in TLM Apps. Knowledge of reporting procedures and requirements. Knowledge of sensitive documents protocols, policies and procedures. Knowledge of plan and profiles and procedures for updating them. 	 Understands computer operation, performs basic data entry and retrieves sorted data. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Analyzes possible causes of problems, recommends action plan and generates solutions.
E2 Maintain and obtain proficiency in current and new technologies	 Technical trainings and working demonstrations are attended with full participation. Initiative is demonstrated to participate in continuous learning opportunities. Construction data, prints, one-line diagrams, site data sheets, plan and profiles and restoration manual are reviewed as required to perform construction and maintenance. Knowledge of transmission line maintenance procedures and technologies are kept current. Technical training needs are identified and communicated to Foreman in an effective and timely manner. 	 Ability to access information about training provided inside and outside the organization. Knowledge of location of equipment instruction manuals and how to use them. Knowledge of location of construction data, prints, one-line diagrams, site data sheets, plan and profiles, restoration manuals and materials and information on transmission line maintenance procedures. 	 Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Records information accurately, completes forms and writes simple documents. Prepares basic summaries and integrates information. Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations. Interprets and applies new knowledge and experience and analyzes application of learning tools. Understands the system organization and hierarchy, follows processes and procedures, and responds to system demand.

Job: Lineman Critical Work Function: F. Communicate with Co-Workers to Promote Safety and Productivity

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
F1 Participate in meetings and problem solving groups	 Meetings are attended with active participation and advance preparation. Issues are accurately and thoroughly discussed and safety concerns are identified. Communication is respectful, clear and relevant. Open items are carried out in a timely manner. 	 Knowledge of BPA and other crafts' terminology. Knowledge of the power system and communication/control system and how they impact other systems. Knowledge of transmission system equipment. Knowledge of the roles and responsibilities of agency personnel, work groups and departments. Knowledge of transmission line construction and maintenance processes and procedures. Knowledge of APM (Accident Prevention Manual). Knowledge of BPA ethics and diversity policies. 	 Communicates appropriate verbal/non-verbal messages, actively participates in discussion and presents complex ideas and information. Confirms information and interprets, clarifies and influences communication. Defends own viewpoints, accepts constructive criticism and accepts responsibility for own behavior. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Analyzes possible causes of problems, recommends action plan and generates solutions. Responds appropriately to others, takes active interest in and willingly helps others and modifies behavior to environment. Prepares basic summaries and integrates information. Understands the legal aspects of discrimination and respects the rights of others. Understands negotiation process, identifies conflicts, demonstrates composure and interprets concerns.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
F2 Communicate safety and job- specific needs	 Communication is in accordance with BPA APM (Accident Prevention Manual) and work standards. Communication is clear, concise and timely using proper terminology. The high priority nature of safety is communicated including participation in and conducting of job briefings. Job-specific safety issues and concerns are discussed as the situation warrants. 	 Knowledge of the importance of safety in the workplace. Knowledge of BPA and other crafts' terminology. Knowledge of the roles and responsibilities of company personnel and departments. Knowledge of APM and work standards. Knowledge of transmission system maintenance and construction processes and procedures. Knowledge of transmission system equipment. 	 Communicates appropriate verbal/non-verbal messages, actively participates in discussion and presents complex ideas and information. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Defends own viewpoints, accepts constructive criticism and accepts responsibility for own behavior. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Analyzes possible causes of problems, recommends action plan and generates solutions.
F3 Communicate and coordinate with Foreman and co-workers	 Supervisor and co-workers are kept informed of events and requests in the district. Safety concerns are clearly communicated to all crew members in a timely manner. Communication is clear and relevant to the situation. Communication is maintained between crew members to ensure productivity, efficiency and morale. Communications comply with standards of conduct. 	 Knowledge of transmission system maintenance and construction procedures and ability to communicate that to others. Ability to identify characteristics of equipment when operating within and outside of normal parameters. Ability to locate, prepare and use equipment histories and trouble reports. Knowledge of BPA policies, goals and targets. Knowledge of standards of conduct. 	 Recognizes job tasks and distributes work assignments. Responds appropriately to others, takes active interest in and willingly helps others, and modifies behavior to environment. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Analyzes possible causes of problems, recommends action plan and generates solutions. Understands the system organization and hierarchy, follows processes and procedures, and responds to system demand. Understands the legal aspects of discrimination and respects the rights of others.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
F4 Communicate with land owners and public	 Land owner and public needs are recognized and acknowledged. Land owner and public requests are responded to in a timely manner including feedback and communication. Information about land owner and public requests and actions taken in response are communicated to appropriate personnel effectively and in a timely manner. Communications with land owners and public comply with standards of conduct and sensitive communications policies. Accurate information is provided regarding working and living around energized transmission lines, Discussions with the public are initiated when appropriate regarding safety and environmental issues. Property owner and land use concerns are responded to in a timely manner. 	 Knowledge of land owner and public rules and protocols when working on their property. Knowledge of the transmission system and equipment. Knowledge of the information needs of BPA departments and personnel regarding requests from land owners and the public. Knowledge of standards of conduct and sensitive communications policies. Knowledge of the power and communication system and BPA equipment and how they interface with the land owners and the public. 	 Demonstrates sensitivity to customer concerns and responds to and analyzes customer needs. Analyzes possible causes of problems, recommends action plan and generates solutions. Responds appropriately to others, takes active interest in and willingly helps others and modifies behavior to environment. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy. Defends own viewpoints, accepts constructive criticism and accepts responsibility for own behavior. Demonstrates honesty and trustworthiness, accepts responsibility for own behavior and analyzes implications of decisions. Understands negotiation process, identifies conflicts, demonstrates composure and interprets concerns. Understands the legal aspects of discrimination and respects the rights of others.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
F5 Assist in training apprentices in all work functions	 Training is accurately given and received, is relevant and is timely. Communication is clear and relevant and proper terminology is used. Support is provided to all apprentices regarding advancement. Proficiency in subject matter is maintained. Appropriate OJT (on-the-job) training opportunities are identified and communicated to fellow employees and trainees. The apprentice is measured by improved performance and demonstration of skills. Apprentice progress is noted through crew evaluations. Crew evaluations are completely filled out and submitted to Foreman. Agency goals are supported through effective mentorship. Apprentice's tasks are clearly defined. 	 Knowledge of BPA terminology. Ability to teach transmission system construction and maintenance procedures and safe work practices. Ability to identify apprentice's needs. Knowledge of subject matter (transmission system components and equipment, construction and maintenance processes, tools, materials etc.) Ability to demonstrate proper BPA Lineman practices. Knowledge of crew evaluation procedures. Ability to create a safe working and learning environment for the apprentice. 	 Conducts task-specific training, coaches others to apply related concepts and provides constructive feedback/reinforcement. Interprets and applies new knowledge and experience and analyzes application of learning tools. Responds appropriately to others, takes active interest in and willingly helps others and modifies behavior to environment. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Efficiently manages time, prioritizes daily tasks, prepares schedule and monitors and adjusts task sequence. Utilizes previous training and experience to predict outcomes; visually analyzes relationship between parts/whole and process/procedure and interprets charts, graphs and symbols. Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities.

Job: Lineman Critical Work Function: G. Maintain a Safe Work Environment

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
G1 Participate in safety meetings	 Open agenda items are contributed when applicable. Unsafe work practices are noted and communicated in a clear and effective manner. All communications in meetings are respectful. 	 Knowledge of safety policies and procedures. Knowledge of safe work practices. Knowledge of the safety organization structure, roles and responsibilities. 	 Understands the system organization and hierarchy, follows processes and procedures, and responds to system demand. Communicates appropriate verbal/non-verbal messages, actively participates in discussion and presents complex ideas and information. Confirms information and interprets, clarifies and influences communication. Understands negotiation process, identifies conflicts, demonstrates composure and interprets concerns. Defends own viewpoints, accepts constructive criticism and accepts responsibility for own behavior. Demonstrates creative thinking process while problem solving; develops creative solutions and applies them to new situations.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
G2 Identify and report unsafe conditions and take corrective actions	 Accidents and injuries are promptly reported to supervisor, and reports are filled out as per instruction. Unsafe situations and conditions are identified and promptly reported. Corrective actions are identified and communicated to appropriate personnel effectively and in a timely manner. Corrective actions are taken promptly (including work stoppage) according to agency and district procedures. APM (Accident Prevention Manual) rules and work standards are followed. 	 Knowledge of symptoms of electrical contact injuries. Ability to identify and take action on an unsafe condition. Knowledge of corrective actions. Knowledge of reporting procedures for accidents, injuries and unsafe conditions. Thorough knowledge of APM rules and work standards. Knowledge of first aid, CPR (cardio pulmonary resuscitation) and AED (Automatic External Defibrillator). 	 Understands the system organization and hierarchy, follows processes and procedures, and responds to system demand. Understands negotiation process, identifies conflicts, demonstrates composure and interprets concerns. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Analyzes possible causes of problems, recommends action plan and generates solutions. Understands computer operation, performs basic data entry and retrieves stored data. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
G3 Participate in or lead job briefings	 All questions are clearly asked and answered. Work procedures and safety hazards are accurately identified and communicated. J-1 Rule in APM (Accident Prevention Manual) is followed. Job briefing is attended with full participation. Communication is clear, concise, and relevant, includes proper terminology and complies with standards of conduct. 	 Knowledge of safety policies and procedures. Knowledge of safe work practices. Knowledge of work procedures and safety hazards. Knowledge of the safety organization structure, roles and responsibilities. Knowledge of APM and job briefings (J-1 Rule) protocols. Ability to communicate to large multi-craft groups. Knowledge of BPA and other crafts' terminology. 	 Adheres to standards, demonstrates commitment to excellence, leads by example and motivates others to extend their capabilities. Identifies relevant details, facts, specifications, follows set of instructions and qualifies/analyzes information. Confirms information and interprets, clarifies and influences communication. Works with minimal supervision, pays attention to details, demonstrates initiative, and monitors performance standards. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Interprets and applies new knowledge and experience and analyzes application of learning tools. Understands negotiation process, identifies conflicts, demonstrates composure and interprets concerns. Uses logic to draw conclusions, analyzes rules and principles and examines information for relevance and accuracy. Analyzes situations and information, considers risks and implications, and compiles multiple viewpoints. Conducts task-specific training, coaches others to apply related concepts and provides constructive feedback/reinforcement.

KEY ACTIVITY	Performance Indicators How do we know when the task is performed well?	Technical Knowledge Skills, Abilities, Tools	Employability Skills SCANS Skills and Foundational Abilities
G4 Obtain and maintain licenses and certifications	 Mandatory trainings are attended as required. Tests (such as clearance and herbicide) are taken and passed as required. CDL (Commercial Drivers License) physicals and drug tests are taken as required. 	 Knowledge of APM (Accident Prevention Manual). Knowledge of first aid and ability to maintain first aid, CPR (cardio pulmonary resuscitation) and AED (Automatic External Defibrillator) certification. Ability to pass the CDL physical and drug tests. 	 Interprets and applies new knowledge and experience and analyzes application of learning tools. Assists and encourages team members, actively participates, works to improve team skills and demonstrates commitment. Efficiently manages time, prioritizes daily tasks, prepares schedule and monitors and adjusts task sequence. Demonstrates honesty and trustworthiness, accepts responsibility for own behavior and analyzes implications of decisions. Prepares basic summaries and integrates information.