The following information is provided as required by Section 358.7(f)(1):

“A transmission provider must post on its Internet Web site the job titles and job
descriptions of its transmission function employees.”

The Transmission and Power Delivery organizational chart helps the user visualize the relationships of the transmission positions.

Transmission and Power Delivery Organizational Chart

Transmission and Power Delivery Job Descriptions
Transmission & Power Delivery Job Descriptions
STATEMENT OF JOB RESPONSIBILITIES

POSITION TITLE: Director – System Operations and Performance

EEO Job Code: A01 – Officials & Managers

FLSA Status: Exempt

SOC Job: Yes

GENERAL PURPOSE:
Provides leadership and direction to ensure safe and reliable local and regional transmission grid operations and safe and reliable operation of Minnesota Power's DC line. Identifies emerging business issues that affect MP Transmission and provides leadership in developing and advocating the MP response in the appropriate forums. Responsible for assuring the development and integration of strategic and operational plans which fulfill Minnesota Power (MP) business strategies and regulatory requirements relating to system operations and performance. Serves on multiple transmission committees that affect transmission operations ensuring MP interests are represented. Requires high degree of interpersonal skills to develop and sustain a highly productive work force and maintain key relationships.

JOB OBJECTIVES:
1. Leadership and direction provided in an atmosphere of mutual respect and continuous improvement.

2. Communication of and support for company policies, goals and strategies.

3. Responsibility for financial performance and allocation of resources (budget, employees, material/equipment, etc.) within functional area.

4. Manages, coordinates and prioritizes multiple projects to ensure they are within budget, meet schedules/timelines and align with company strategy.

5. Acquires and evaluates information to achieve and communicate well reasoned conclusion(s) to complex issues.

6. Ensures safe and reliable operation of MP's power delivery and transmission facilities to meet system load needs, meet applicable industry reliability and regulatory standards, and to operate as an integral part of the region's electric power system.

7. Provides transmission outage coordination assuring that emergency and operating plans, policies and procedures are in place and up to date.

8. Oversight of training related to Power System operations, restoration, new equipment; to ensure operator certification and maintain NERC accreditation of training program.

9. Compliance with rules, regulations, policies, contracts (safety, environmental, labor, reliability, etc.).

10. Provide leadership and is a strong proponent of MP Operations Shared Purpose, Values and Future.
WORKING RELATIONSHIPS:
External: Customers, suppliers, industry organizations, power pool, other utilities, regulatory agencies, lawmakers.

Internal: All employees.

HIRING GUIDELINES:

Education:
Bachelor's degree in electrical engineering or equivalent. Must have a professional engineering license and be NERC certified. Advanced professional degree (MBA) highly desirable.

Experience:
Over ten year’s job related experience in the electric utility industry. Must have experience in the operation and performance of the region’s electric power system and of working with the various regional and national entities that affect grid operations (for e.g. MRO, NERC, MISO, MAPP). Experience in DC line technology and operations highly desirable.

Leadership Qualities:
Able to demonstrate the following:
- Proven ability to create and articulate a vision, and obtain the desired results.
- Deals with others honestly, respectfully and with integrity.
- Ensures credit for success is spread throughout the company and takes personal responsibility for failures.
- Listens to new ideas and embraces new ways of doing things.
- Self-initiated ability to see things that others have not seen and thus lead followers in new directions.
- Clearly articulates expectations to obtain desired results.
- Energizes and creates future leaders.

Special Requirements:
This position may be subject to assessment of skills, job match and/or aptitude.

KEY TASKS AND ACTIVITIES (The main task areas and associated principal activities):

<table>
<thead>
<tr>
<th>Percentage of Time: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Analyzing numerical information</td>
</tr>
<tr>
<td>* Analyzing written information</td>
</tr>
<tr>
<td>Identifying patterns or trends within data</td>
</tr>
<tr>
<td>Using formalized analysis (e.g., network, critical path)</td>
</tr>
</tbody>
</table>

APPRAISING / EVALUATING/DEVELOPING

<table>
<thead>
<tr>
<th>Percentage of Time: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Appraising the past performance of individuals</td>
</tr>
<tr>
<td>* Appraising the personal development of individuals</td>
</tr>
<tr>
<td>* Appraising individuals for recruitment or promotion</td>
</tr>
</tbody>
</table>
* Considering appropriate staff development action
* Creating confidence among those learning new skill
* Assisting others produce ideas

**ASSESSING / EVALUATING**
Percentage of Time: 2
- Assessing the probability or likelihood of an event occurring
- Evaluating alternatives prior to a choice
- Evaluating information for purposes of recommendation
- Evaluating the implications of research findings
- Evaluating the written work of others
- Making a logical evaluation of new ideas

**ASSISTING / CARING**
Percentage of Time: 2
- Assisting workers who encounter job difficulties

**CALCULATING**
Percentage of Time: 2
- Making simple calculations without a machine (applying formulas)
- Calculating (+, -, ×, ÷) without a machine
- Calculating (decimals, %, fractions) without a machine
- Complex numerical reasoning in a business context
- Complex numerical reasoning in a technical/applied science context

**CONTROLLING / DIRECTING**
Percentage of Time: 10
- Authorizing actions
- Controlling the use of resources to meet objectives (non-people)
- Controlling the use of people in meeting objective
- Directing the implementation of agreed policy
- Ensuring legal agreements or other binding agreements are adhered to
- Ensuring work is carried on within a pre-specified budget
- Following up with people to expedite completion of a task
- Generating rules or regulations

**COOPERATING / ACTING AS A LIAISON**
Percentage of Time: 5
- Achieving cooperation from peers, colleagues
- Acting as liaison between organizations or departments
- Acting as liaison with clerical/manual workers
- Acting as liaison with managers/professionals
- Acting as liaison with supervisors
- Assisting with activities outside main work requirement
- Cooperating on joint projects with other departments, organizations
- Participating in non-obligatory, work related groups/committees

**COUNSELING**
Percentage of Time: 2
- Advising on interpersonal behavior
- Advising on job performance improvement
<table>
<thead>
<tr>
<th>DECIDING</th>
<th>Percentage of Time: 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Deciding a course of action in conjunction with others</td>
<td></td>
</tr>
<tr>
<td>* Deciding a course of action on own initiative</td>
<td></td>
</tr>
<tr>
<td>* Making decisions which affect the employment or welfare of people</td>
<td></td>
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<tr>
<td>* Making decisions after thorough evaluation</td>
<td></td>
</tr>
<tr>
<td>* Making snap decisions under time pressure</td>
<td></td>
</tr>
<tr>
<td>* Mentally reacting to emergency situations</td>
<td></td>
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<tr>
<td>* Ruling on questions of procedure</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DISCIPLINING / DISPUTES / GRIEVANCES</th>
<th>Percentage of Time: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Avoiding emotional involvement in disputes</td>
<td></td>
</tr>
<tr>
<td>* Being sympathetic</td>
<td></td>
</tr>
<tr>
<td>* Defending another individual's position</td>
<td></td>
</tr>
<tr>
<td>* Disciplining people</td>
<td></td>
</tr>
<tr>
<td>* Giving verbal warnings in order to correct behavior</td>
<td></td>
</tr>
<tr>
<td>* Handling disciplinary problems firmly</td>
<td></td>
</tr>
<tr>
<td>* Issuing formal warnings</td>
<td></td>
</tr>
<tr>
<td>* Maintaining discipline in a work environment</td>
<td></td>
</tr>
<tr>
<td>* Pointing out poor standard of work</td>
<td></td>
</tr>
<tr>
<td>* Reducing tension between people</td>
<td></td>
</tr>
<tr>
<td>* Resolving disputes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPLEMENTING / COORDINATING</th>
<th>Percentage of Time: 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Delegating duties to others</td>
<td></td>
</tr>
<tr>
<td>* Allocating resources (people, materials, etc.) among varies jobs</td>
<td></td>
</tr>
<tr>
<td>* Allocating resources in emergencies</td>
<td></td>
</tr>
<tr>
<td>* Ensuring the efficient coordination of activities</td>
<td></td>
</tr>
<tr>
<td>* Organizing resources to meet an objective</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INFLUENCING / ADVISING</th>
<th>Percentage of Time: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Advising board of directors (or equivalent) regarding policy</td>
<td></td>
</tr>
<tr>
<td>* Advising on everyday points of procedure</td>
<td></td>
</tr>
<tr>
<td>* Advising those other than board of directors/equivalent regarding policy</td>
<td></td>
</tr>
<tr>
<td>* Arguing a case in a formal meeting or session</td>
<td></td>
</tr>
<tr>
<td>* Defending a position against critical attack</td>
<td></td>
</tr>
<tr>
<td>* Making a case to superiors for resources or support</td>
<td></td>
</tr>
<tr>
<td>* Making a spoken case for a particular course of action</td>
<td></td>
</tr>
<tr>
<td>* Negotiating on points of dispute</td>
<td></td>
</tr>
<tr>
<td>* Setting out arguments for or against different courses of action</td>
<td></td>
</tr>
<tr>
<td>* Summarizing salient points in a debate or disagreement</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INFORMING / DISCUSSING / INTERVIEWING</th>
<th>Percentage of Time: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Answering critical questions about activities</td>
<td></td>
</tr>
<tr>
<td>* Discussing issues with others for the purpose of clarification or explanation</td>
<td></td>
</tr>
<tr>
<td>* Informing workers or staff of management policies</td>
<td></td>
</tr>
<tr>
<td>Percentage of Time</td>
<td>Activity Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>2</td>
<td>Interviewing formally with an unstructured guide</td>
</tr>
<tr>
<td>2</td>
<td>Making a verbal report to a higher level supervisor or manager</td>
</tr>
<tr>
<td>2</td>
<td>Making constructive verbal criticism</td>
</tr>
<tr>
<td>2</td>
<td>Making constructive written criticism</td>
</tr>
<tr>
<td>2</td>
<td>Providing clear spoken information about a problem, issue or event</td>
</tr>
<tr>
<td>2</td>
<td>Providing clear written information about a problem, issue or event</td>
</tr>
</tbody>
</table>

**INTEGRATING / CODING / ESTIMATING**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Estimating risk associated with a particular course of action</td>
</tr>
<tr>
<td>2</td>
<td>Summarizing verbal or numerical information</td>
</tr>
</tbody>
</table>

**INTERPRETING**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Interpreting loosely structured information</td>
</tr>
<tr>
<td>2</td>
<td>Interpreting rules, laws, agreements, etc.</td>
</tr>
<tr>
<td>2</td>
<td>Interpreting doctrine</td>
</tr>
<tr>
<td>2</td>
<td>Interpreting statistical information</td>
</tr>
</tbody>
</table>

**INVESTIGATING / OBSERVING / SEARCHING**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Asking questions to establish information required</td>
</tr>
</tbody>
</table>

**LEARNING / RESEARCHING**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Keeping abreast of information and developments in a field of specialization</td>
</tr>
<tr>
<td>2</td>
<td>Undertaking informal training or coaching</td>
</tr>
</tbody>
</table>

**MOTIVATING**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Appealing to people to increase their motivation</td>
</tr>
<tr>
<td>5</td>
<td>Creating a good team spirit</td>
</tr>
<tr>
<td>5</td>
<td>Emphasizing importance of reaching a work objective</td>
</tr>
<tr>
<td>5</td>
<td>Encouraging cooperation between team members</td>
</tr>
<tr>
<td>5</td>
<td>Encouraging slow or handicapped learners</td>
</tr>
<tr>
<td>5</td>
<td>Gaining willing cooperation</td>
</tr>
<tr>
<td>5</td>
<td>Persuading an individual to carry out an unappealing task</td>
</tr>
<tr>
<td>5</td>
<td>Providing reassurance for those suffering discomfort or anxiety</td>
</tr>
<tr>
<td>5</td>
<td>Putting people at ease in anxiety provoking situations</td>
</tr>
<tr>
<td>5</td>
<td>Stimulating interest in activities</td>
</tr>
<tr>
<td>5</td>
<td>Sustaining interest of others in projects or continuing tasks</td>
</tr>
<tr>
<td>5</td>
<td>Understanding the personal needs or motives of others</td>
</tr>
<tr>
<td>5</td>
<td>Warning people in order to increase their motivation</td>
</tr>
</tbody>
</table>

**PHYSICAL ACTIVITIES / OPERATING VEHICLES**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Driving a car, van or light truck</td>
</tr>
</tbody>
</table>

**PLANNING**

<table>
<thead>
<tr>
<th>Percentage of Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Anticipating problems</td>
</tr>
<tr>
<td>5</td>
<td>Defining objectives for an organization or department</td>
</tr>
</tbody>
</table>
- Developing strategy in a competitive situation
- Formulating or adjusting policy
- Planning a logical sequence of events or tasks
- Planning long term (strategic) objectives
- Planning short term (task) objectives
- Revising plans to account for changed circumstances
- Setting priorities for utilizing resources
- Setting up financial budgets

**PRESENTING / INSTRUCTING / BRIEFING**

<table>
<thead>
<tr>
<th>Percentage of Time: 2</th>
</tr>
</thead>
</table>
- Addressing a gathering or audience
- Briefing individuals on tasks or situations
- Delivering a lecture
- Explaining specialist topics to non-specialist individuals

**PROBLEM SOLVING / DESIGNING**

<table>
<thead>
<tr>
<th>Percentage of Time: 2</th>
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</thead>
</table>
- Brainstorming for new ideas
- Finding new ways to improve the efficiency of an operation

**PUBLIC RELATIONS / DEVELOPING RELATIONSHIPS**

<table>
<thead>
<tr>
<th>Percentage of Time: 5</th>
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</thead>
</table>
- Advising members of the general public
- Representing the organization at trade fairs, shows, displays
- Establishing a network of contacts
- Establishing quickly a rapport with a new contact
- Establishing relationships with antagonistic individuals
- Establishing a network of contacts to facilitate meeting job objectives
- Maintaining good public relations
- Speaking publicly on behalf of an organization or department
- Getting along with other members of a team or unit

**REVIEWING / EVALUATING**

<table>
<thead>
<tr>
<th>Percentage of Time: 2</th>
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</thead>
</table>
- Evaluating numerical data concerning organization or department activities
- Evaluating written reports of organization or dept.

**SUPERVISING / DIRECTING**

<table>
<thead>
<tr>
<th>Percentage of Time: 3</th>
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</thead>
</table>
- Taking the chair at committees or other meetings
- Directly supervising people at work
- Giving verbal instructions to colleagues as part of a system or process
- Giving instructions to subordinate supervisors or managers
- Issuing directions in an emergency
- Maintaining a physical presence to ensure all is well
- Supervising people at a distance (e.g., other locations)
- Supervising to insure compliance with laws / regulations

**TAKING INFORMATION FROM THE SENSES**

<table>
<thead>
<tr>
<th>Percentage of Time: 2</th>
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</table>
- Listening to verbal instructions from superiors
<table>
<thead>
<tr>
<th>Percentage of Time: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Listening to verbal reports from subordinates</td>
</tr>
<tr>
<td>* Completing routine administration associated with main job functions</td>
</tr>
<tr>
<td>* Drawing up legally binding documents</td>
</tr>
<tr>
<td>* Writing a description of a situation, case or phenomenon</td>
</tr>
<tr>
<td>* Writing articles for organizations or public media</td>
</tr>
<tr>
<td>* Writing material for a public audience</td>
</tr>
<tr>
<td>* Writing formal correspondence or memoranda</td>
</tr>
<tr>
<td>* Writing proposals for action</td>
</tr>
</tbody>
</table>
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: ENGINEER SENIOR

EEO / Job Group: B / 005 Senior Operations/Engineering/Safety Professionals
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:

Provides technical leadership and direction for engineering staff in area of expertise to assure application of sound engineering practices in a cost-effective manner to enhance customer operations, maintain reliability of systems and safety for MP employees and the public. Performs administrative work relating to projects and assignments; acts as staff advisor and technical consultant within and outside assigned department in area of expertise. Promotes positive change in Minnesota Power business strategy through achievement of customer specific objectives and technological innovation of practical and profitable nature, (i.e., stakeholders benefit). Requires high level of interpersonal skills to establish and maintain positive and productive working relationships.

JOB OBJECTIVES:

1. Technical leadership and direction for engineering technical staff including work assignments, training, performance monitoring, etc.

2. Assessment of technological innovation for applicability to improve efficiency of company/customer operations.

3. Development and maintenance of records, documents, and quality assurance quality control plans for legal and historical purposes.

4. Development and maintenance of credible working relationships with government agencies, consultants, contractors, general public, customers, etc.

5. Professional engineering and consulting services provided to customers.

6. Analysis of operating events to identify and recommend solutions to improve equipment and/or operating procedures.

7. Management of capital projects including estimates, budgets, schedules, material procurement, engineering documentation, coordination with involved departments, customers, utilities, etc.

8. Facilitation of activities/cross-functional groups formed to address opportunities based on technological change.
9. Compliance with applicable Minnesota Power, local, state, and federal rules, laws, regulations, and policies.

WORKING RELATIONSHIPS:

External: Vendors, consultants, customers, contractors, governmental agencies, general public

Internal: All levels of employees and management.

HIRING GUIDELINES:

Education:

Bachelor’s degree in engineering, or equivalent

Experience:

Over ten years job-related experience.

Certification:

Professional Engineer license.

Special Requirements:

This position may be subject to assessment of skills, job match and/or aptitude.
Engineer III

No Job Description
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Engineer II
EEO Job Code: B01
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:
Provide engineering expertise, for both internal and external customers. Services include: project planning, development, design, evaluation, implementation, modification, and documentation; develop engineering standards balancing corporate and customer needs; research new technology for potential corporate application; serve as training resource in area of expertise. Strong interpersonal and communication skills required to establish and maintain positive working relationships.

JOB OBJECTIVES:
1. Studies reports for recommendations, feasibility, decision making, legal/regulatory.
2. Long term/short term plans (one-year/five-years) in place, updated, current.
3. Engineering cost estimates for budgets and project justification.
4. Engineering design meets requirements (customer needs, Company business needs, technically correct, environmental, and cost effective).
5. Equipment/material meets requirements within cost constraints.
6. Projects proceed smoothly (schedule, costs).
7. Standards for design, material, operations in place, up-to-date.
9. Application of new, emerging technology
10. Cross-functional, technical support in area of expertise (training, mentoring).
WORKING RELATIONSHIPS:

External: Vendors, contractors, other utilities, customers, regulatory agencies.

Internal: All company departments.

HIRING GUIDELINES:

Education:

Bachelor's degree in engineering, preferably electrical, mechanical, civil, chemical or other utility-related area; power option for electrical and mechanical engineering graduates preferred.

Experience:

Over four years of related engineering experience.

Certification:

Professional Engineer license desirable, and may be required dependent on position responsibility.

Special Requirements:

This position may be subject to assessment of skills, job match and/or aptitude.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Engineer I

EEO Job Code: B01
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:

Provide technical support for project planning, development, implementation, and modification; contributes to engineering standards development balancing corporate and customer needs; research new technology for potential corporate application. Interpersonal and communication skills required to establish and maintain positive working relationships.

JOB OBJECTIVES:

1. Engineering standards meet company and customer needs and applicable codes in cost effective manner.

2. Feasibility, performance, and/or condition assessments.

3. Plans developed and maintained to meet company long-term goals and needs.

4. New technology identified and available for company utilization.

5. Engineering designs meet needs and standards in cost effective manner.

6. Systems operate to meet company and customer needs in cost effective manner.

7. Project management meets design, budget, and scheduling requirements.

8. Technical support provided to all departments regarding project development, implementation, maintenance, modification/improvement, and training.

9. Solutions to problems - short term, emergencies, "firefighting".

10. Cost controls - budget constraints and business goals met.
**WORKING RELATIONSHIPS:**

External: Vendors, contractors, other utilities, customers, regulatory agencies.

Internal: All company departments.

**HIRING GUIDELINES:**

**Education:**

Bachelor's degree in engineering, preferably electrical, mechanical, civil, chemical or other utility-related area; power option for electrical and mechanical engineering graduates preferred.

**Experience:**

No experience required; utility engineering intern experience desired.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.
Supervisor of Application

No Job Description
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Programmer Analyst II

EEO Job Code: B/008 - Finance/Administrative Professionals
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:
Provides technical programming analysis and support to users including design, development, modification, problem resolution, and short-term planning in order to meet business objectives. Plans and recommends process solutions for the company. Responsible for design, requirement analysis, installation, documentation, trouble shooting, and monitoring of computer systems. Strong interpersonal and communication skills required to establish and maintain positive working relationships.

JOB OBJECTIVES:

1. Implement computer solutions to improve business processes.

2. Analyze business and user needs to jointly develop procedures and system specifications.

3. Design integrated computer solutions using company standards to model, control, monitor, document and account for information and or process control systems.

4. Develop and/or obtain computer system(s) to meet design requirements through modifications, configuration, and integration.

5. Project plans are developed addressing resources (people, systems, money), timelines and coordination of activities.

6. Develop, execute and coordinate proper tests to assure system requirements, data integrity and safety are met.

7. Obtain and maintain technical, operational and interpersonal proficiency to design, develop and support business solutions.

8. Users are trained to efficiently use their own systems.


10. Provide ongoing support of operations through historical analysis, troubleshooting and system/data base/web base administration to ensure system performance.
KEY TASKS AND ACTIVITIES (The main task areas and associated principal activities):

REVIEWING / EVALUATING

- Identifying problems in a project design
- Reviewing systems or processes to assess adequacy
- Reviewing efficiency of an operation

PROBLEM SOLVING / DESIGNING

- Suggesting new solutions to production problems
- Devising standardized tests for people or systems
- Designing machinery or equipment for specific purpose

ASSESSING / EVALUATING

- Testing a system for correct functioning
- Evaluating quality of output of a production system
- Evaluating alternatives prior to choice

PLANNING

- Ensuring component parts fit overall project design
- Anticipating problems
- Preparing a specification for a project

INTEGRATING / CODING / ESTIMATING

- Writing computer programs
- Editing written or visual material
- Integrating information

LEARNING / RESEARCHING

- Learning new systems, methods or processes
- Keeping abreast of developments in a specialist field
- Undertaking informal training or coaching

USING TOOLS / MACHINERY

- Personally operating electronic or other machinery
- Using a computer for information storage or retrieval
- Using a computer to create simulations

ANALYZING / DIAGNOSING

- Diagnosing problems in non-physical system/procedure
- Breaking down a procedure into logical steps
- Identifying patterns or trends within data

CHECKING

- Checking points of detail
- Verifying the accuracy of calculations
- Noting defects in an object or structure
DECIDING

Mentally reacting quickly to emergency situations
Making quick decisions under time pressure
Ruling on questions of procedure

INFORMING / DISCUSSING / INTERVIEWING

Discussing issues for clarification or explanation
Personally dictating notes or correspondence
Making a verbal report to a supervisor or manager

CONTROLLING / DIRECTING

Ensuring work is within a pre-specified budget
Ensuring agreements (legal and / or binding) adhered to
Requiring work to be redone to meet specifications

PRESENTING / INSTRUCTING / BRIEFING

Instructing in the use of tools or equipment
Explaining theory to students or trainees
Presenting formal teaching or training sessions

TAKING INFORMATION FROM THE SENSES

Following written instructions
Following logical instructions to operate a machine

IMPLEMENTING / COORDINATING

Allocating resources (people, materials) between jobs
Ensuring efficient coordination of activities
Initiating action in emergency
WORKING RELATIONSHIPS:

External: Vendors, Consultants, regulatory agencies, other company’s information systems staff and/or representatives

Internal: All company departments

HIRING GUIDELINES:

Education:

Bachelor’s degree: Computer Science, Engineering, Accounting or equivalent.

Experience:

Over four years of directly related job experience.

Special Requirements:

This position may be subject to assessment of skills, job match and/or aptitude.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: SCADA SYSTEMS ANALYST SENIOR

EEO Job Code: Finance/Administrative Professionals
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:

Provides independent, complex analysis and maintains SCADA system functionality to support and/or enhance system platforms under limited guidance. Facilitates system modifications, as well as investigating design approaches. Ensures the integrity of data and performs duties with a high level of accuracy to ensure safe and reliable operation of the MP electrical system. Serves as a liaison to operations, engineering, and field technicians in facilitating EMS updates. Provides compliance support for MRO documentation. Solves complex problems; takes a new perspective using existing solutions. Assures that all work meets company, industry and regulatory standards. Requires good communication skills to maintain positive working relationships.

JOB OBJECTIVES:

(*) indicates tasks which have been designated as essential job functions.

*1. Provide technical expertise to ensure SCADA system functionality including systems integration, programming, and support to maintain and/or enhance complex system platforms. May serve as an informal mentor and/or resource for less experienced colleagues.

*2. Facilitate system testing, installation, and modifications, making effective use of available time and/or resources.

*3. Investigate the feasibility of alternate system/program design approaches to determine solutions to best satisfy immediate and long-term internal and external customer needs.

*4. Design and create SCADA system points for the EMS monitoring and controlling of bulk electric and distribution system components.

*5. Research and evaluate requests for database feasibility and accuracy.

*6. Provide real-time information from the RTU (Remote Terminal Unit) to the Control Center and ensure continuous functional availability of the SCADA/EMS system to monitor and control the electrical system.

*7. Monitors, tests and repairs SCADA/EMS computer hardware and communications links to RTUs.
*8. Operate field controlled devices during EMS point checks to ensure proper operation, display, and data. Develop real time data calculations for power system devices and EMS displays.

*9. Design displays for EMS system control and critical information using AutoCAD (substation displays, alarms, status, and analog) and provide technical support to the control center by maintaining existing EMS displays.

*10. Manage ODID naming to maintain communications between System Operations EMS and distribution OMS.

*11. Assist in coordinating project schedules to ensure timely completion of work.

*12. Administer EnterNet Suite access requests.

*13. Identify, diagnose, and solve point based problems.

*14. Serve as a resource to facilitate effective/efficient utilization of equipment/systems.

**WORKING RELATIONSHIPS:**

External: Neighboring utilities, customers, vendors, contractors, and consultants


**HIRING STANDARDS:**

Education:

- Bachelor’s degree in a related field; or an associate’s degree in a related field plus two additional years of utility experience beyond what is required in the “Experience” section below.
- Completion of EMS Display and Data Base Editing courses.
- Completion of NERC Certification.

Experience:

- A minimum of eight years of related utility experience.

Special Requirements:

- Understanding of electrical theory, utility operation, electrical equipment and terminology is required.
- Knowledge of advanced EMS application software is required.
- Thorough knowledge of SCADA/RTU concepts, AutoCAD, SQL (Structured Query Language) and relational database is required.
- Thorough knowledge of system operations and implications of field device operation is required.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: SCADA SYSTEMS ANALYST II

EEO Job Code: Finance/Administrative Professionals
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:

Provides moderately complex analysis and maintains SCADA system functionality to support and/or enhance system platforms under moderate guidance. Facilitates system modifications, as well as investigating design approaches. Ensures the integrity of data and performs duties with a high level of accuracy to ensure safe and reliable operation of the MP electrical system. Serves as a liaison to operations, engineering, and field technicians in facilitating EMS updates. Provides compliance support for MRO documentation. Analyzes possible solutions using standard procedures and solves a range of straightforward problems. Assures that all work meets company, industry and regulatory standards. Requires good communication skills to maintain positive working relationships.

JOB OBJECTIVES:

1. Ensure SCADA system functionality including systems integration, programming, and support to maintain and/or enhance complex system platforms.

2. Assist in facilitating system testing, installation, and modifications, making effective use of available time and/or resources.

3. Assist in investigating the feasibility of alternate system/program design approaches to determine solutions to best satisfy immediate and long-term internal and external customer needs.

4. Design and create SCADA system points for the EMS monitoring and controlling of bulk electric and distribution system components.

5. Research and evaluate requests for database feasibility and accuracy.

6. Provide real-time information from the RTU (Remote Terminal Unit) to the Control Center and ensure continuous functional availability of the SCADA/EMS system to monitor and control the electrical system.

7. Monitors, tests and repairs SCADA/EMS computer hardware and communications links to RTUs.
8. Design displays for EMS system control and critical information using AutoCAD (substation displays, alarms, status, and analog) and provide technical support to the control center by maintaining existing EMS displays.

9. Manage ODID naming to maintain communications between System Operations EMS and distribution OMS.

10. Assist in coordinating project schedules to ensure timely completion of work.

11. Identify, diagnose, and solve point based problems.

12. Serve as a resource to facilitate effective/efficient utilization of equipment/systems.

**KEY TASKS AND ACTIVITIES** *(The main task areas and associated principal activities):*

(All items “x” are essential job functions have been deleted from this copy)

**WORKING RELATIONSHIPS:**

External: Neighboring utilities, customers, vendors, contractors, and consultants


**HIRING STANDARDS:**

**Education:**

- Bachelor’s degree in a related field; or an associate’s degree in a related field plus two additional years of utility experience beyond what is required in the “Experience” section below.
- Completion of EMS Display and Data Base Editing courses.

**Experience:**

- Over six years of related utility experience.

**Special Requirements:**

- Understanding of electrical theory, utility operation, electrical equipment and terminology is required.
- Knowledge of advanced EMS application software is required.
- Thorough knowledge of SCADA/RTU concepts, AutoCAD, SQL (Sequel Query Language) and relational database is required.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Operational Technology Specialist

EEO Job Code: 11 Computers/System Tech
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:
Provide leadership, direction, and guidance to ensure reliability of substation and Operations Technology (OT) by developing, implementing, and overseeing all aspects of the associated cyber technology. Act as liaison between Information Technology (IT) and OT environments. Perform research and stays current on industry cyber practices, technologies, and systems. Ensures that technology training for users is developed, deployed, and objectives followed. Design, implement, and document standardized controls including remote system access, communication configurations, recovery plans, and vendor support. Evaluate, recommend, monitor, and maintain design standards, guidelines, and procedures used to operate cyber systems. Support operational cyber efforts to ensure all regulatory standards are adhered to including North American Electric Reliability Corporation Critical Infrastructure Protection (NERC CIP). Leadership, continuity, and guidance to build knowledge of the organizations, processes, and customers while developing proficiency and skills within discipline. Requires high level of interpersonal and communication skills to establish and maintain positive working relationships.

JOB OBJECTIVES:
(*) indicates tasks which have been designated as essential job functions.

1. *Develop and implement controls, standards, guidelines, and procedures to maximize the value of operational technology in the substation infrastructure while minimizing risk.

2. *Ensure the operational technology is aligned to meet all NERP CIP compliance and other regulatory standards are adhered to as applicable.

3. *Represent the substation operational area in corporate cyber governance efforts.

4. *Coordinate and advise users on substation operational technology, and organize the assimilation of new considerations and security requirements into work practices and system design.

5. *Perform daily function of and lead team members providing functional and technical guidance to primary and secondary users, system administrators, and information owners and custodians to ensure familiarity and understanding of procedures, controls, requirements, and security risks.

6. *Perform and lead research efforts and recommend emerging practices, systems, and technologies to improve operating procedures.

7. *Develop, lead, and implement projects and initiatives to improve cyber technology value, compliance, and security.
8. Oversee risk analysis to identify all critical substation system and cyber security requirements to ensure appropriate controls are in place.

9. Establish and maintain internal and external relationships to positively affect results.

10. Provide technical writing support and editing direction for operating and compliance documentation, and organize and update documentation as necessary to meet requirements.

**WORKING RELATIONSHIPS:**

**External:** Technology and service contractors and vendors, external auditors

**Internal:** Employees at all levels within entire organization

**HIRING GUIDELINES:**

**Education:**

- Associate’s degree, preferably in Electrical/Computer Engineering, Industrial Controls, Engineering Technology, Computer Science, Information Systems, or related field.

**Experience:**

A minimum of two years of related job experience including but not limited to:

- related operational technology systems
- technical support of computer information systems,
- electric utility substation engineering operations, or
- support with related experience in cyber system communication, configuration, or management.

**Special Requirements:**

- This position may be subject to assessment of skills, job match and/or aptitude.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Supervisor, System Operations

EEO Job Group: C - 010 (Non-Union Technical Workers)

FLSA Status: Exempt

Soc Job: Yes

GENERAL PURPOSE:

Provides leadership, direction, and supervision of the operation of the Minnesota Power Transmission System and Balancing Area to maintain reliable, secure, electrical energy systems and continuous generation/load balance. Coordinates the training requirements and prepares work schedules for the MP System Operators. Meets customer needs and Company economic requirements thru coordination with other departments, outside organizations, and customers. Directs MP System Operators in the performance of their job duties. Assures that Balancing Area load forecasts and generation needs are met. Assures that departmental and field personnel are fully trained and qualified to operate designated systems. Requires high level of interpersonal skills to establish and maintain positive and productive working relationships.

JOB OBJECTIVES:

1. Direction of MP’s Transmission System within safety, reliability, operating, economic and regulatory guidelines (NERC, FERC, MRO, OSHA, MP, MPUC, MISO etc.).

2. Development and maintenance of emergency and operating policies and procedures, including system restoration, clearance/commissioning procedures, and switching procedures.

3. Responsible for maintaining the “Minnesota Power Substation Operation and Switching Procedures” manual, including updates and modifications necessary to ensure the safety of personnel and the reliability of the MP transmission system.

4. Responsible for the development of all control area load forecasts (24 hrs – 180 days).

5. Leadership, continuity and guidance for ongoing day to day activities provided to various functions in performance of their job duties.

6. Shift personnel schedules provide adequate work coverage, training, and development.

7. Maintains awareness of current MAPP/NERC/FERC requirements.

8. Information shared among all other appropriate areas to provide common focus.
9. Maintain system reliability and ensure efficient operation of the MP Transmission system and Balancing Area to meet MP strategic objectives.

10. Provide for qualified switchman training classes and maintenance of MP, GRE, and Contractor qualified switchmen listings.

**WORKING RELATIONSHIPS:**

**External:** Large power customers, large light and power customers, other utility control centers, Midwest Reliability Organization, Midwest ISO, NERC, law enforcement, other emergency service providers, all industrial and commercial customers, Power Marketers, professional associations, industry educational groups, vendors


**HIRING GUIDELINES:**

**Education:**

Bachelors’ degree in power technology, electrical power operations or equivalent, plus additional training specific to department requirements (such as successful completion of Minnesota Power System Operator Training Program, graphics & configuration, simulator software/hardware, Experience with energy scheduling, Strategic Accounts, generation and control area operations).

**Experience:**

Over eight years of job-related experience.

**Special Requirements:**

Must obtain and maintain NERC System Operator certification.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Power System Coordinator

EEO Job Code: Technicians / 010 Non-Union Technical Workers
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:

Coordinates certain system operating activities to ensure reliability, safety and compliance with NERC standards. Under general direction, reviews, coordinates and schedules clearance requests from various departments and other utilities. Advises and assists operators in applying correct procedures to optimize system security, personnel safety and efficiency. Develops operating guides in conjunction with System Performance engineers. Accuracy of performance is required to avoid injury or death to personnel, blackouts, major economic losses and adverse public relations. Provides liaison function between operations and engineering. May be required to fill in as a System Operator.

JOB OBJECTIVES:

1. All construction and maintenance on Minnesota Power transmission facilities are economically scheduled and in accordance with Midwest ISO timing requirements.
2. All construction and maintenance work on MP transmission facilities is coordinated with generators, other utilities and Major customers.
3. Boundaries of equipment clearances are correctly defined and special considerations during switching are identified.
4. Real time transmission problems are resolved by providing real time guidance to the power system operators and acting as a liaison to the System Performance engineers.
5. Switching, commissioning and testing procedures are available for construction projects and result in safety of workers and security of the power system. System operators are trained on new equipment.
6. Effective operating guidelines in compliance with NERC and MISO standards that ensure security of the power system are implemented during changing system conditions.
7. Transmission and substation engineering designs take into account operational requirements.
8. Serves as single point of contact for system operating issues with major customers of Key Account Representatives.
9. Power system emergencies are effectively handled to minimize operating problems.
**WORKING RELATIONSHIPS:**

Frequent contact with those inside and outside the company to affect actions taken by others to explain and install switching and operating procedures to share information and reach a satisfactory course of action.

**Internal:** Generation, Engineering, System Performance and Relay, Tech Systems, Distribution, System Telecommunications, Marketing

**External:** Industrial customers, MISO, Municipals, Power Cooperatives, other utilities, MRO, U.S. Weather Bureau personnel.

**HIRING STANDARDS:**

**Education:**

High School or equivalent plus additional training in power system operations including the Minnesota Power System Operator Training Program. Must be NERC certified.

**Experience:**

Over six years of experience in power system operation. Engineering experience desirable.

**Special Requirements:**

This position may be subject to assessment of skills, job match and/or aptitude.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Daily Outage Coordinator

EEO Job Code: C/010 Non-Union Technical Workers

FLSA Status: Exempt

SOC Job: Yes

GENERAL PURPOSE:
Coordinate power system operating activities, including switching, field crews, and equipment outages, to ensure reliability, safety and compliance with NERC standards. Under the direction of the Power System Coordinator, reviews, coordinates and schedules clearance requests from various departments and other utilities, with primary responsibility for distribution outage coordination. Advises and assists operators in applying correct procedures to optimize system security, personnel safety and efficiency. Develops operating guides in conjunction with the Power System Coordinator, System Operations staff, Distribution engineering and System Performance engineers. Accuracy of performance is required to safely execute field operations and maintain system reliability. Provide liaison function between operations and engineering.

JOB OBJECTIVES:
1. All construction and maintenance of Minnesota Power transmission facilities are economically scheduled, coordinated, and in accordance with Midwest ISO timing requirements.

2. Boundaries of equipment clearances are correctly defined and special considerations during switching identified.

3. Responsible for developing preliminary switching orders developed to ensure a safe working environment for personnel and equipment.

4. Daily coordination studies for real time operation support of switching sequences and emergency events.

5. Switching, commissioning and testing procedures are available for construction projects ensuring safety of workers and security of the power system.

6. Transmission and substation engineering designs take into account operational requirements for safe, economical and reliable operation.

7. Outage Management System support including assigning and maintaining the identifiers required for all switching devices to ensure the uniqueness of each identifier.

8. Maintain System One Line diagrams and substation One Line diagrams to ensure they are accurate, current and communicated timely.

9. Ensure compliance to all applicable standards & requirements (NERC, FERC, MISO, MRO, OSHA, etc.).

10. Coordinates activities with Power System Coordinator and provides backup when necessary.
**WORKING RELATIONSHIPS:**
External: Neighboring utilities, customers, vendors, contractors, and consultants


**HIRING STANDARDS:**
**Education:**
High School or equivalent plus additional training in power system operations. Must be NERC Certified.

**Experience:**
4 years System Operator experience, knowledge of EMS applications, AutoCAD experience preferred.
STATEMENT OF JOB RESPONSIBILITIES

POSITION TITLE: Shift Supervisor, System Operations

EEO Job Code: Technicians / 003 Technical Supervision
FLSA Status: Exempt
SOC Job: Yes

GENERAL PURPOSE:

Supervises and operates the Minnesota Power Transmission, Distribution, Generation and Control Area systems to maintain a reliable Bulk Electric System. Provides leadership for assigned shift and System Operations. Has the authority and is responsible for directing the work of System Operators on shift and completing their performance reviews. Provides input and is directly involved in any decisions regarding hiring/firing and disciplinary actions. In conjunction with the Trainer, ensures that Operators are meeting their required training. Supervise and coordinate electric operations with the Midwest Independent System Operator and other interconnected systems. Directs field and plant personnel in performance of their functions as it relates to the Bulk Electric and Distribution Systems. Directs and coordinates real-time activities with various departments within Minnesota Power to meet safety, reliability, economic and strategic goals and objectives. Requires strong interpersonal skills to establish and maintain positive working relationships inside and outside the Company.

JOB OBJECTIVES:

1. Restoration of the system to steady state and first contingency operation (switching orders, remote operation).

2. Economic and efficient operation of Transmission, Distribution, Generation systems and MP control Area to meet company strategic objectives, enhance revenue and actively market transmission resources.

3. Safe operation of Transmission and Distribution System (personnel, equipment).

4. Supervision and leadership provided to System Operators on assigned shift to maintain a reliable Bulk Electric System.

5. Provides leadership and direction to employees, contractors, other utilities and customers in equipment and operation and system security.

6. Reliability and security of Transmission, Distribution and interconnected systems established, maintained and coordinated with MISO, MRO and other utilities.

7. Technical expertise in power system operations kept current; keeps abreast of system and industry changes.

8. Internal/external customer needs are addressed by providing current operating information, assistance and follow through as appropriate.

9. Current and accurate records, files and documentation are maintained for legal, safety and historical purposes.

10. Supervision and operation of power system and MP Control Area within safety, reliability, operating, regulatory guidelines (NERC, FERC, MISO, MRO, OSHA, MP, MPUC, etc.)
11. Serves as emergency response coordinator to ensure that appropriate authorities (2911, 911, MN Duty Officer, Sheriff, etc) are dispatched in a timely manner.

12. Active involvement and support of management decisions through department meetings, special projects, communication and support.

**WORKING RELATIONSHIPS:**

**External:** Large power customers, large light and power customers, other utility control centers, Midwest Reliability Organization regional control center, law enforcement and other emergency service providers, NERC, all industrial and commercial customers, Power Marketers.

**Internal:** All departments.

**HIRING GUIDELINES:**

**Education:**
Completion of System Operator Progression. Bachelor’s degree desirable.

**Experience:**
Four or more years of experience as a System Operator or equivalent including considerable leadership experience.

**Special Requirements:**
Must pass color perception testing.
Must obtain and maintain NERC System Operator certification.
This position requires rotating shifts and working weekends.
This position may be subject to assessment of skills, job match and/or aptitude.
Must be able to report to the work site within 30 minutes of call-in.
STATEMENT OF JOB RESPONSIBILITIES

POSITION TITLE: System Operator

EEO Job Code: Technicians/ 011 Computer/Systems Technicians

FLSA Status: Exempt

SOC Job: Yes

GENERAL PURPOSE:

Under general direction, operates the Minnesota Power Transmission, Distribution, Generation and MP Control Area Systems to maintain reliable, secure electrical energy systems, to meet customer needs and economic requirements, and to coordinate operations with interconnected systems. Directs and coordinates activities with service dispatch function. Requires interpersonal skills to establish and maintain positive working relationships inside and outside the Company.

JOB OBJECTIVES:

1. Transmission and Distribution System operated to provide for safety of plant and field personnel.

2. Economic and efficient operation of Transmission, Distribution, Generation systems and MP Control Area to meet company strategic objectives.

3. Operation of power system and MP Control Area within safety, reliability, operating, economic and regulatory guidelines (NERC, FERC, MISO, MRO, OHSA, MP, MPUC, etc.).

4. Internal/external customer needs are addressed by providing current operating information, assistance and follow through as appropriate.

5. Transmission, Control Area and Distribution Systems restored to steady state and first contingency operation (switching orders, remote operation).

6. Equipment isolated for testing, maintenance, new installation (switching orders, remote operations).

7. All activities and changing system conditions documented for legal, safety and historical purposes.

8. Awareness of system conditions maintained to respond to contingencies, anomalies, deviation, abnormal conditions (monitoring alarms).

9. Reliability and security of Transmission, Distribution, and interconnected systems established, maintained and coordinated with MISO, MRO and other utilities.

10. Technical expertise in power system operations kept current; keeping abreast of system and industry changes.
WORKING RELATIONSHIPS:

External: Midwest Independent System Operator, Large power customers, large light and power customers, other utility control centers, Midwest Reliability Organization regional control center, law enforcement and other emergency service providers, NERC, all industrial and commercial customers, Power Marketers.

Internal: All departments

HIRING GUIDELINES:

Education:
Associate's degree or equivalent for operators beginning the four (4) year progression.

Experience:
Completion of four (4) year System Operator Progression.

Special Requirements:
Must meet existing norms in System Operator/Power Dispatcher test battery.
Must pass color perception testing.
Must obtain and maintain NERC System Operator certification.
This position requires rotating shifts and working weekends.
This position may be subject to assessment of skills, job match and/or aptitude.
Must be able to report to the work site within 30 minutes of call-in.
**STATEMENT OF JOB RESPONSIBILITIES**

**POSITION TITLE:** System Operations Compliance Specialist

**EEO Job Code:** Technicians / 003 Technical Supervision

**FLSA Status:** Exempt

**SOC Job:** Yes

**GENERAL PURPOSE:**
Assist in administration of Minnesota Power's compliance requirements relating to North American Electric Reliability Corporation (NERC) and Midwest Reliability Organization (MRO) compliance standards. Monitor, analyze, and report on NERC and MISO Standards and Business Practices to assure Minnesota Power is compliant with current requirements related to Operations and that Minnesota Power is prepared to comply with future requirement additions or changes. Provide support in the development of NERC and MRO reliability standard documentation to support compliance. Excellent communication, project management, coordination and cooperation skills are required to be effective. Requires a highly self-motivated individual with strong interpersonal communication skills to establish and maintain working relationships through the company and with regulatory agencies.

**JOB OBJECTIVES:**
(*) indicates tasks which have been designated as essential job functions.

* 1. Serve as Standard Owner and Requirement Subject Matter Expert for System Operations related compliance standards as well as any standards that cross over into other responsibility areas.

* 2. Represent System Operations on cross-functional groups to ensure Minnesota Power's consistent understanding of standard compliance requirements.

* 3. Represent Minnesota Power on external organizations, such as NERC Standards Drafting Teams, North American Transmission Forum, and Mid-Continent Compliance Forum dealing with NERC compliance as it relates to Operations.

* 4. Develop, maintain, and implement processes and procedures to monitor NERC compliance.

* 5. Develop and maintain documentation/evidence that supports System Operations compliance to NERC, OSHA, and MRO standards.

* 6. Assist in the development of reports and presentations as necessary for System Operations to communicate and implement new procedures as related to the NERC standards.

* 7. Provides assistance to System Operations in the preparation for and participation in NERC and MRO audits, including the preparation and filing of external compliance reports, such as Annual Self Certification, Spot Audits, On-site Audits, Event Reports, and Reliability Standard Audit Worksheets (RSAW).

* 8. Maintain NERC Certification and technical expertise in power system operations; keep abreast of NERC, MRO, and MISO policies, procedures, requirements, and practices.

* 9. Prepare responses and voting recommendations to NERC Standards that are applicable to Minnesota Power System Operations.


* 11. Assist in the development and editing of System Operation documentation such as operational guides and procedures.

* 12. Provide expertise and training for System Operations personnel as necessary on related NERC, MRO, and MISO standards, policies, and procedures.

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* 13. Assist in Maintaining System One Line diagrams and substation One Line diagrams to ensure they are accurate, current, and communicated timely.


**WORKING RELATIONSHIPS:**

External: NERC, Midwest Reliability Organization regional control center, large power customers, large light and power customers, other utility control centers, law enforcement and other emergency service providers, all industrial and commercial customers, Power Marketers.

Internal: All departments.

**HIRING GUIDELINES:**

**Education:**
- Completion of System Operator Progression.
- Minimum NERC Combined Balancing Authority and Transmission Operator Certification.
- Bachelor’s degree desirable.

**Experience:**
- Four or more years of experience as a System Operator or equivalent experience in power system operations, including considerable leadership experience.

**Special Requirements:**
- Must pass color perception testing.
- Must maintain NERC System Operator certification.
- Knowledge of EMS applications, AutoCAD experience preferred.
- This position may be subject to assessment of skills, job match and/or aptitude.
STATEMENT OF POSITION RESPONSIBILITIES

POSITION TITLE: Trainer, System Operations

REPORTS TO: Training Administrator, System Operations

EEO Job Code: C03 - Technicians

Eligible for Overtime: No

GENERAL PURPOSE:
Performs a variety of activities relating to operations training including assuring properly trained and qualified system operators, documentation of training activities, development of new training activities to ensure compliance with applicable rules and regulations (Safety, NERC, MRO, Etc.). Coordinates Dispatcher Training Simulator exercises to meet MP training objectives and NERC requirements. Provides training to MP personnel involved in switching and tagging on the MP transmission system. Requires excellent interpersonal skills to develop and maintain productive working relationships. May fill in on shift as needed to provide continuity and training opportunities to operators.

JOB OBJECTIVES:

1. Assist with the development of training and testing programs for the System Operators to ensure skill levels remain adequate and up to date with current system conditions and requirements.


3. All training records documented and maintained to comply with NERC requirements.

4. Strengths/weaknesses of System Operators identified and specific training targeted. Annual training plans developed for each operator.

5. Coordination, implementation, and running of Dispatcher Training Simulator scenarios to meet MP training objectives and NERC CEH simulation hours.

6. Fill in on shift when needed to provide position coverage and training opportunities for operators.
7. Assist in coordination of training activities to support ongoing System Operator NERC CEH recertification activities.

8. Development and implement of formal classroom exercises involving technical personnel presentations and testing to meet NERC CEH and company requirements.

9. Maintain internal training library of current and up to date NERC CEH training modules

10. Assists with maintenance and updating of System Operations website.

11. Assist with coordination of MISO restoration drills and other regional training activities as required.

12. Switching personnel qualified to perform switching. Maintain up to date qualified switching listing.

13. Regular training and simulation exercises with System Operators to ensure MP readiness to operate from the Backup Control Center.

14. Coordinate training on OMS system. Provide point of contact and day to day support on OMS issues.

15. Assure periodic (annual) review of system operating guidelines to ensure correctness and NERC compliance.

16. Provide on-shift training support as necessary.

17. Other duties and special assignments as required.

**WORKING RELATIONSHIPS:**

**External:** Other utilities, MISO, MRO, NERC, industry groups, industrial customers

**Internal:** Customer Supply & Delivery, Energy Supply & Asset Optimization, EMS Support, Generation Energy Center Operations, Telecommunications, System Performance, Public Relations, Strategic Accounts, Information Technology Services, Human Resources, Service Dispatch

**HIRING GUIDELINES:**

**Education:**

Associates degree in power technology, electrical power operations, or equivalent.

**Experience:**

Four or more years of experience as a Minnesota Power System Operator or closely related operational experience.
**Special Requirements:**

Completion of Minnesota Power’s 4 Year System Operator Training Program. Must possess and maintain NERC System Operator Certification.