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: Manager – System Performance & Transmission Planning

EEO Job Code: B02 – Officials & Managers

FLSA Status: Exempt

SOC Job: Yes

GENERAL PURPOSE:
Provides leadership 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 workforce and maintain key relationships.

JOB OBJECTIVES:
1. Leadership 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 10 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.
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, 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.
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 job-related experience.

**Special Requirements:**

Must obtain and maintain NERC System Operator certification.
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.
Shift Supervisor, System Operations

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 POSITION RESPONSIBILITIES

POSITION TITLE: Power System Coordinator

EEO Job Code: Technicians / 010 NonUnion 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 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 POSITION RESPONSIBILITIES

POSITION TITLE: Control Area Specialist

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

GENERAL PURPOSE:

Responsible for verifying all required OASIS tags and to ensure the corresponding schedule is assigned. Must input next day Marketing and Transmission energy schedules into EMS system accurately. Reliable and accurate Daily Customer Interruption reports are generated and distributed to internal departments and external parties (GRE). Must comply with North American Electric Reliability Council (NERC) policies and applicable regional council policies. Requires effective interpersonal skills to establish and maintain working relationships inside and outside the Company. The position is designed to provide training and experience to allow progression to Control Area Operator when needed.

JOB OBJECTIVES:

1. EMS system data reflects next day Marketing and Transmission energy schedules to ensure proper Control Area operations.

2. Provides support to the Control Area Operators and System Operators to meet safety, reliability, operating, economic and regulatory guidelines (FERC, MAPP, OSHA, etc.).

3. Updates MP OASIS system daily to ensure that availability and pricing information is accurate.

4. All required OASIS tags are verified and ensures corresponding schedule is assigned to comply with regulatory requirements.

5. Audits and corrects daily Mwh operating data prior to transmitting to data warehouse.

6. Emergency schedule transactions are reviewed and reconciled to ensure proper payment and billing.

7. Provides accurate Daily Customer Interruption Reports for internal departments and external parties (GRE).

8. Skills and knowledge in power systems operations are obtained and maintained; keeps abreast of system, power pool and industry changes.
WORKING RELATIONSHIPS:

External: Regional Coordination Center, other utilities, large power industrial and commercial customers, municipal, and wholesale customers, law enforcement and other emergency service providers, and Power Marketers.

Internal: Electric Utility Operations and engineering personnel, Telecommunications, Environmental Services, Corporate Relations, MPEX, Customer Services, and Accounting.

HIRING GUIDELINES:

Education:

Associate's degree: accounting, computer technology, electricity or equivalent.

Experience:

Two to four years of related utility experience in power marketing, power systems operations, electrical fundamentals, or energy accounting. Must possess good PC skills. Experience in Control Area Operations is desirable.

Special Requirements:

Must obtain and maintain NERC Control Area Operator certification in order to provide relief for the Control Area Operator as needed. This position may require rotating shifts and working weekends.
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 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: Training Administrator System Operations

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

FLSA Status: Exempt

Census Code: 255

SOC Job: Yes

GENERAL PURPOSE:
Assures that departmental personnel are fully trained and qualified to operate designated systems. Training programs are developed, documented, implemented and maintained to meet demands of current and changing system conditions, regulations, and requirements; that applicable tests are developed and administered; and leadership is provided for operations training function. Provides guidance to various operations functions in performance of their job duties. Requires high level of interpersonal skills to establish and maintain positive and productive working relationships.

JOB OBJECTIVES:
1. Through leadership, training, and mentoring provide System Operations personnel with a coordinated training program to ensure reliable system operation.

2. Development, implementation, documentation and administration of a defined set of training objectives to meet NERC and Regional Reliability Organization standards, MP operating procedures, and applicable regulatory requirements.

3. Identification, scheduling and recording of specific training needs for individual operations personnel, other utilities and MP customers.

4. Operations personnel have knowledge to operate designated systems and equipment in accordance with all safety and environmental regulations and other requirements.

5. Provide for system simulation (DTS), NERC standards, emergency operations, and other training opportunities to allow operations personnel to maintain NERC certification requirements.

6. Supervision of other operations training personnel.

7. Administers qualified switchman training program to ensure switching personnel are able to safely perform system switching operations.

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

9. Shift personnel schedules provide adequate work coverage, training, and development.
10. Keeps abreast of information and developments in emerging technologies, safety trends and training techniques. Maintains awareness of current MAPP/MISO/NERC/FERC requirements. Maintains involvement with regional training efforts to ensure operators are kept aware of new procedures and meet changing requirements.

11. Information shared among all other appropriate areas to provide common focus.

12. Coordinate system restoration drills, and provide regular BCC training exercises to ensure operator familiarization and capabilities during emergency events.

**WORKING RELATIONSHIPS:**

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

**Internal:** Electric Utility Operations personnel, Telecommunications, Environmental Services, Corporate Relations, MP Marketing, Energy Supply and Asset Optimization, Customer Services, Service Dispatch.

**HIRING GUIDELINES:**

**Education:**

Must be competent in both knowledge of system operations and instructional capabilities. 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, and training tools)

**Experience:**

Eight or more years experience as a System Operator.

**Special Requirements:**

Must possess and maintain NERC System Operator certification.
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 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.