

Appendix C. Transmission Line Route Permit Example

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION
LINE AND ASSOCIATED FACILITIES**

IN BENTON COUNTY

**ISSUED TO
XCEL ENERGY
PUC DOCKET NO. E002/TL-10-1026**

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

XCEL ENERGY

Xcel Energy is authorized by this route permit to construct the approximately 4.7 mile long St. Cloud Loop 115 kV transmission line and associated facilities in Benton County, Minnesota.

The transmission line and associated facilities shall be built within the route identified in this permit, as portrayed on the official route maps, and in compliance with the all other conditions specified in this permit.

Approved and adopted this _____ day of November, 2011

BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

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FIGURES

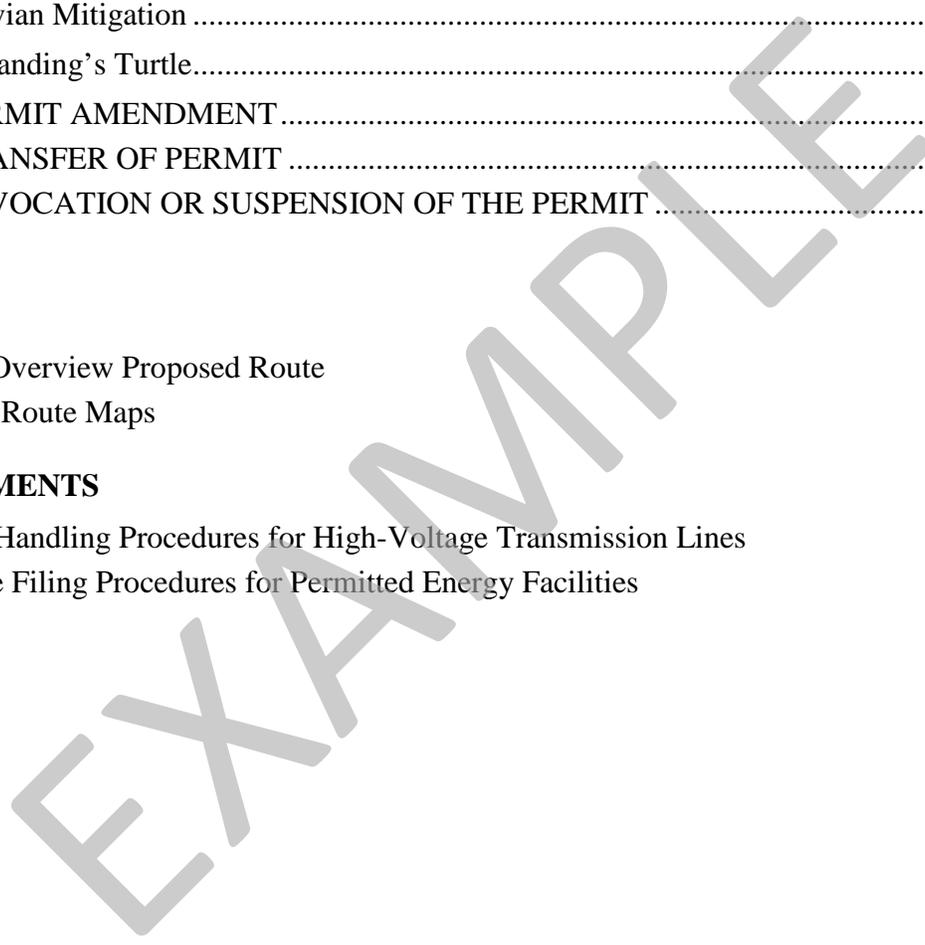
Figure 1 – Overview Proposed Route

Figures 2 – Route Maps

ATTACHMENTS

Complaint Handling Procedures for High-Voltage Transmission Lines

Compliance Filing Procedures for Permitted Energy Facilities



1 ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Xcel Energy (permittee) pursuant to Minnesota Statute 216E.03 and Minnesota Rules 7850. This permit authorizes the permittee to construct approximately 4.7 miles of new 115 kV transmission line and associated facilities in Benton County, Minnesota and as identified in the attached route permit maps, hereby incorporated into this document.

2 PROJECT DESCRIPTION

The permittee is authorized to construct a project comprising a 4.7-mile transmission line and as described in the route permit application and evaluated in the environmental assessment. The approved route is shown on the route permit maps attached to this permit and further designated as described.

The project consists of a new 4.7-mile long 115 kV transmission line and is divided into two segments. The first segment (new Line 5520) is approximately 4 miles long and will be constructed between the Mayhew Lake Substation and the Granite City Substation. The second segment (extension of existing Line 5509) is approximately 0.7 miles long and will be constructed between the intersection of Line 5509 with Lines 0887 and 0899 and Structure 39.

The permittee may construct, modify, and upgrade the following for the project:

- construct approximately 4 miles of new 115 kV transmission line (Line 5520) between the Mayhew Lake Substation and the Granite City Substation;
- remove a 1,700 foot segment of existing single-circuit 115 kV transmission line (Line 5509) between the Granite City Substation and its intersection with Lines 0887 and 0899;
- install approximately 0.7 miles of new 115 kV transmission line to extend existing Line 5509 from its intersection with Lines 0887 and 0899 to Structure 39, install either a new single-circuit pole or a new double-circuit structure near Structure 39 and connect Line 5509 from Structure 39 to existing Line 0899, thus creating newly designated Line 5509 connecting the Mayhew Lake Substation to the Benton County Substation;
- remove existing Line 0887 jumper at Structure 39 so that Line 0887 is no longer connected to Benton County Substation, and keeping Line 0887 connection between the St. Cloud and Granite City substations;
- disconnect the existing Line 0899 at Structure 39 to the Benton County Substation and connecting to removed Line 0887 segment from Structure 39 to Benton County Substation, and designating this revised line from Granite City to Benton County substations as Line 0899;
- install fiber optic ground wire with the new 115 kV line and the remaining segment of Line 0899; and

- modify the Benton County, Crossroads, Granite City, Mayhew Lake, and St. Cloud and substations to accommodate the above changes, which includes changing and/or adding new line termination equipment and/or a ring bus, adding transfer trip and pilot relaying, installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.

2.1 Project Location

The 115 kV St. Cloud Loop transmission line project will be located northeast of the city of Sauk Rapids in Benton County, Minnesota. The project would specifically be located in portions of the city of Sauk Rapids and Minden and Sauk Rapids townships

Route	County	Township Name	Township	Range	Sections
Proposed Route	Benton	City of Sauk Rapids	36N	31W	14, 23, 24, 25
Proposed Route	Benton	Sauk Rapids Township	36N	31W	11, 12, 13, 14, 23, 24, 25, 36
Proposed Route	Benton	Minden Township	36N	30W	30, 31

2.2 Associated Facilities and Substations

The project would include changes and modifications to five existing substations and existing transmission lines 0887, 0899 and 5509; installation of fiber optic ground wire; and changing existing line designations.

Mayhew Lake Substation

Changes and modifications at the existing Mayhew Lake Substation include the addition of oil circuit breakers, a 115 kV main bus, and a 115 kV line termination structure. The new structures and equipment will require site grading and expansion of the fenced area (approximately 0.6 acres), foundation installation, steel structure installation, equipment installation, and control room modifications. Changes will also include three new transmission line structures for routing of the proposed transmission line into the substation along with modifications to existing structures including possible removal and replacement of one old structure with one of the newly proposed structures.

Granite City Substation

Changes and modifications at the existing Granite City Substation include the addition of oil circuit breakers, a 115 kV main bus, and a 115 kV line termination structure. A new dead-end transmission structure(s) will be required where the new transmission line would enter the substation site with a preliminary location in the northeast corner of the substation site.

Benton County, St. Cloud, and Crossroads Substations

Changes and modifications will include replacements or upgrades of relays and communication equipment internal to the control house(s), installing fiber optic lines for relaying and transfer trip, installing breakers, reconfiguring line protection, replacing shield wire with fiber optic shield wire, and related modifications.

Transmission Structure 39

Jumpers connecting existing lines will be removed and new jumpers will be added to Structure 39 depending on the proposed transmission line re-designations. New single- and/or double-circuit structures will also be constructed near Structure 39 to support the new transmission line connections and re-designations.

2.3 Structures and Conductors

The primary structure or tangent structure the permittee shall use for the project is a galvanized steel, weathering steel or wood single-pole structure with braced posts or davit arms. The tangent structures will be approximately 70 feet to 90 feet in height with an average span of 300 feet to 400 feet between structures (500 foot maximum). The steel structures will have up to a 5 foot to 8 foot average diameter foundation at ground surface and taper with height.

Approximately 2.7 miles of the new transmission line shall follow and be underbuilt with existing distribution lines along U.S. Highway 10. The permittee shall design the project to fit within these existing easements, thereby requiring less right-of-way while still satisfying the needs of the project. For this segment of the project the permittee shall use the same tangent structures as described above with the addition of a distribution crossarm.

Angle structures will be similar in design to the tangent structures described above. Given the limited right-of-way, guyed structures would likely not be necessary.

Double-circuit structures may be used for approximately 0.7 miles of the route where existing Line 5509 would be extended from its intersection with Lines 0887 and 0899 to Structure 39. A double-circuit structure may also be required to connect the newly extended Line 5509 from Structure 39 to existing Line 0899 that runs to the existing Benton County Substation. The double-circuit structures will be a galvanized or weathered steel single-pole with davit arms approximately 75 to 105 feet in height with spans of 300 to 500 feet.

The phases for the project will be constructed with three single steel supported aluminum conductors (ACSS) which each consist of a single conductor comprised of seven steel core strands surrounded by 26 outer aluminum strands. The separate conductors are 795,000 circular mils or approximately 1.092 to 1.139 inches in diameter. The 115 kV transmission line would be three-phase, 60 Hz (hertz), alternating current line.

Line Type	Conductor	Structure Type	Structure Material	Estimated Foundation Diameter (feet)	Structure Height (feet)	Span Between Structures (feet)
115 kV Single-Circuit	ACSS 795 kcmil 26/7	Single Pole Braced Post or Davit Arm	Galvanized Steel, Weathering Steel, or Wood	5 - 8	70 - 90	300 - 500
115 kV Single-Circuit with Distribution Underbuild	ACSS 795 kcmil 26/7	Single Pole Davit Arm with Distribution Crossarm Underbuild	Galvanized Steel, Weathering Steel or Wood	5 - 8	70 - 90	300 - 500
115 kV Double-Circuit	ACSS 795 kcmil 26/7	Single Pole Davit Arm	Galvanized Steel or Weathering Steel	6 - 8	75 - 105	300 - 500

The transmission line shall be equipped with protective devices to safeguard the public if an accident occurs. A 0.528 inch diameter fiber optic cable will be installed to protect from lightning strikes and allow for communication between substation protection equipment and other terminals.

The transmission line shall be designed to meet or exceed local and state codes, the National Electric Safety Code (NESC), North American Electric Reliability Corporation (NERC) requirements. This includes standards relating to clearances to ground, clearance to crossing utilities, clearance to buildings, strength of materials, clearances over roadways, right-of-way widths, and permit requirements.

3 DESIGNATED ROUTE

The approved route is shown on the route maps attached to this permit and further designated as follows:

The transmission line exits the existing Mayhew Lake Substation, heads west along County Road 29 for one-half mile and south-southwest for three-tenths of a mile cross-country to U.S. Highway 10. The route proceeds south along the east side of U.S. Highway 10 for two and nine-tenths miles, turns east for three tenths of a mile following County Ditch 3 to the existing Granite City Substation. A second segment of new transmission line will connect to existing Line 5509 at 14th Avenue NE and head south-southeast following County Ditch 3 and existing transmission lines in the area for approximately seven-tenths of a mile to existing Transmission Structure 39.

3.1 Route Width and Alignment

As depicted in the route maps attached to this permit, the designated route will be limited to 400 feet in width for the entire length of the transmission line route, as follows: 200 feet on each side of the proposed alignment from the Mayhew Lake Substation west to its intersection with U.S. Highway 10; a 400 foot route width left-aligned with the eastern edge of the northbound lanes of U.S. Highway 10; 200 feet on either side of the proposed alignment from U.S. Highway 10 heading east along County Ditch 3 to the Granite City Substation; 200 feet on either side of the proposed alignment for the new segment extending Line 5509 at approximately 14th Avenue NE to Structure 39. A 200 foot route width extending from the existing Xcel Energy-owned Mayhew Lake and Granite City substations and 1.4 acres of additional route width located north of the Granite City substation also are authorized. These widths will provide the permittee with flexibility for minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below.

Consequently, this permit anticipates that the actual right-of-way will generally conform to this alignment unless changes are requested by individual landowners, unforeseen conditions are encountered, or are otherwise provided for by this permit. Any alignment modifications within this designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit, and shall be specifically identified and documented in and approved as part of the Plan and Profile submitted pursuant to Section 4.1 of this permit.

Route width variations outside the designated route may be allowed for the permittee to overcome potential site specific constraints. These constraints may arise from any of the following:

- 1) Unforeseen circumstances encountered during the detailed engineering and design process.
- 2) Federal or state agency requirements.
- 3) Existing infrastructure within the transmission line route, including but not limited to roadways, railroads, natural gas and liquid pipelines, high voltage electric transmission lines, or sewer and water lines.
- 4) Planned infrastructure improvements identified by state agencies and local government units (LGUs) and made part of the evidentiary record during the contested case proceeding for this permit.

Any alignment modifications arising from these site specific constraints that would result in right-of-way placement outside the designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit and shall also be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to Section 4.1 of this permit.

3.2 Right-of-Way Placement

Where the transmission line route parallels existing highway and other road rights-of-way, the transmission line right-of-way shall occupy and utilize the existing right-of-way to the maximum extent possible, consistent with the criteria in Minnesota Rule 7850.4100, the other requirements of this permit, and for highways under the jurisdiction of the Minnesota Department of Transportation (Mn/DOT), Mn/DOT rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

3.3 Right-of-Way Width

The 115 kV transmission line will be built primarily with single pole structures, which will require a 75-foot right-of-way. Where the transmission line will be underbuilt with 2.7 miles of existing distribution line along U.S. Highway 10, the project shall be designed to fit within the existing distribution line easements, thereby reducing the amount of new right-of-way that would be required.

4 GENERAL CONDITIONS

The permittee shall comply with the following general conditions during construction of the transmission line and associated facilities and the life of this permit.

4.1 Plan and Profile

At least 30 calendar days before right-of-way preparation for construction begins on any segment or portion of the project, the permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, transmission structure specifications and locations, and restoration for the transmission line. The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per the permit.

The permittee may not commence construction until the 30 days has expired or until the Commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the permittee shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

4.2 Construction Practices

The permittee shall follow those specific construction practices and material specifications described in the Xcel Energy application to the Commission for a route permit, dated March 11, 2011, and as described in the environmental assessment and Findings of Fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

4.2.1 Field Representative

At least 10 days prior to commencing construction, the permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction.

The field representative's address, phone number, email, and emergency phone number shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The permittee may change the field representative at any time upon written notice to the Commission.

4.2.2 Local Governments

During construction, the permittee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services occur, these would be temporary and the permittee will work to restore service promptly.

Where any impacts to utilities have the potential to occur, permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.2.3 Cleanup

All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.2.4 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minnesota Rule 7030.0200, to ensure nighttime noise level standards will not be exceeded.

4.2.5 Vegetation Removal in the Right-of-Way

The permittee shall minimize the number of trees to be removed in selecting the right-of-way specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences and vegetation in areas such as trail crossings, where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall tree species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed.

In many cases certain low and slow growing species that do not exceed a mature height of 15 feet can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

Vegetation management in infrequently mowed areas, such as in ditches, along utility access roads, and under power lines, shall be done mechanically (chemicals shall not be used). Work in these areas shall occur fall through spring (after October 1st and before June 1st).

4.2.6 Aesthetics

The permittee shall consider input pertaining to visual impacts from landowners or land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance. Structures shall be placed at the maximum feasible distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts.

4.2.7 Erosion Control

The permittee shall follow standard erosion control measures outlined in Minnesota Pollution Control Agency (MPCA) guidance and best management practices regarding sediment control practice during construction include protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

The permittee shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect sediment control fences (e.g. biorolls, sandbags, and silt fences), apply mulch (e.g. hay or straw) on exposed soils, and/or use erosion control blankets and turf reinforcement mats to provide structural stability to bare surfaces and slopes.

When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the permittee shall consult with (Mn/DOT) and Minnesota Department of Natural Resources (DNR) to select specific site characteristic seed certified to be free of noxious weeds.

Contours shall be graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation, provide for proper drainage, and prevent erosion. All areas disturbed during construction of the facilities shall be returned to their pre-construction condition.

Where larger areas of one acre or more (substation site) are disturbed or other areas designated by the MPCA, the permittee shall prepare the required Stormwater Pollution Prevention Plan (SWPPP) and obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit from the MPCA.

4.2.8 Wetlands and Water Resources

Structures shall be located to span watercourses, wetlands, and floodplains to the extent practicable and consistent with sound engineering principles. Minimal grading of areas around pole locations may be required to accommodate construction vehicles and equipment.

The permittee shall endeavor to access wetlands and riparian areas using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts wherever possible.

Construction in wetlands and riparian areas shall be scheduled during frozen ground conditions, when practicable. When construction during winter is not possible, construction mats (wooden mats or a composite mat system) shall be used to protect wetland vegetation. All-terrain construction vehicles designed to minimize soil impact in damp areas may also be used.

No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. The structures shall be assembled on upland areas before they are brought to the site for installation.

Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area. The permittee shall also utilize erosion control methods identified in Section 4.2.7 (Erosion Control), as warranted. Areas disturbed by construction activities shall be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.).

4.2.9 Temporary Work Space

The permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Space shall be selected to limit the removal and impacts to vegetation.

Temporary lay down areas outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact by using the shortest route possible. Construction mats may also be used to minimize impacts on access paths and construction areas.

4.2.10 Restoration

The permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Practices to restore areas impacted by construction and maintenance activities are also described in Section 4.2.7 of this permit.

Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line.

Within 60 days after completion of all restoration activities, the permittee shall advise the Commission in writing of the completion of such activities. The permittee shall compensate landowners for any yard/landscape, crop, soil compaction, drain tile, or other damages that may occur during construction.

4.2.11 Notice of Permit

The permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

4.3 Periodic Status Reports

The permittee shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The permittee need not report more frequently than weekly. At the request of the Commission, the permittee shall report to the Commission on progress regarding finalization of the route and design of structures.

4.4 Complaint Procedures

Prior to the start of construction, the permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

4.5 Notification to Landowners

The permittee shall provide all affected landowners with a copy of this permit and the complaints procedures at the time of the first contact with the landowners after issuance of this permit. At the time of first contact, the permittee shall also provide all affected landowners with a copy of the *Landowner Guide to Easements* publication provided by the Department of Commerce.

The permittee shall contact landowners prior to entering the property or conducting maintenance along the route. The permittee shall avoid construction and maintenance practices, particularly the use of fertilizer, herbicides or other pesticides, that are inconsistent with the landowner's or tenant's use of the land (See also, Section 4.2.5).

The permittee shall work with landowners to locate the high-voltage transmission lines to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

4.6 Completion of Construction

4.6.1 Notification to Commission

At least three days before the line is to be placed into service, the permittee shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.

4.6.2 As-Builts

Within 60 days after completion of construction, the permittee shall submit copies of all the final as-built plans and specifications developed during the project.

4.6.3 GPS Data

Within 60 days after completion of construction, the permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (ArcGIS compatible map files, GPS coordinates, associated database of characteristics, etc.) for all structures associated with the transmission lines, each switch, and each substation connected.

4.7 Electrical Performance Standards.

4.7.1 Grounding

The permittee shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes (mA), root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short-circuit current between ground and the object so as not to exceed one mA rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The permittee shall address and rectify any induced current problems that arise during transmission line operation.

4.7.2 Electric Field

The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

4.7.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the transmission line, the permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

4.8 Other Requirements.

4.8.1 Applicable Codes

The permittee shall comply with applicable requirements of the NESC including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of-way widths, erecting power poles, and stringing of transmission line conductors. The transmission line facility shall also meet the NERC reliability standards.

4.8.2 Other Permits

The permittee shall comply with all applicable state rules and statutes. The permittee shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of the required permits is included in the route permit application and the environmental assessment. The permittee shall submit a copy of such permits to the Commission upon request.

4.8.3 Pre-emption

Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the permittee and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

4.8.4 Delay in Construction

If the permittee has not commenced construction or improvement of the route within four years after the date of issuance of this permit, the Commission shall consider suspension of the permit in accordance with Minnesota Rule 7850.4700.

5 SPECIAL CONDITIONS

The permittee shall provide a report to the Commission as part of the plan and profile submission that describes the actions taken and mitigative measures developed regarding the project and the following Special Conditions.

5.1 Tauber Property

In the vicinity of the Tauber Property, the permittee shall work with Benton County to place new pole structures within the existing County Road 29 right-of-way as close to the road as is allowable, hang conductors on the road side so that they are further away from the home, and otherwise design structures so that right-of-way width of 75 feet can be reduced along this specific portion of the route, allowing the new pole structures to span the parcel and stay along the County Road 29 roadway.

5.2 Contamination Survey

The permittee, in consultation with the MPCA, shall identify any contaminated sites as it performs its detailed survey and acquisition work prior to the submittal of the final plan and profile to the Commission.

5.3 Archaeological and Historic Resources

The permittee shall consult with the Minnesota State Historic Preservation Office (SHPO) once detailed survey and acquisition work has been performed, and prior to the submittal of the final plan and profile to determine the need and extent of survey work that may be required for the project.

The permittee shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high-voltage transmission line on the approved route. In the event that a resource is encountered, the SHPO should be contacted and consulted; the nature of the resource should be identified; and a determination should be made on the eligibility for listing in the National Register of Historic Places. Where feasible, avoidance of the resource is required.

5.4 Avian Mitigation

The permittee's standard transmission design shall incorporate adequate spacing of conductor(s) and grounding devices in accordance with Avian Power Line Interaction Committee standards to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

The permittee shall site the route to avoid tree and shrub removal at the wooded wet swale north and south of Golden Spike Road at the U.S. Highway 10 interchange, where an important wetland corridor exists; attach kestrel nest boxes to power poles, one every one-half mile, along U.S. Highway 10, particularly between Benton Drive and Golden Spike Road, where American kestrels are known to occur; and in consultation with the DNR, incorporate swan flight diverters every 25 feet along the route staggering them between the lines for trumpeter swans, Canada geese and sandhill cranes, three species identified in areas that are of particular concern.

5.5 Blanding's Turtle

The permittee shall follow measures and recommendations for avoiding and minimizing impacts to Blanding's turtle populations as outlined in the *Minnesota Department of Natural Resources Division of Ecological Resources Environmental Review Fact Sheet Series for Blanding's Turtle* (http://files.dnr.state.mn.us/natural_resources/animals/reptiles_amphibians/turtles/blandings_turtle/factsheet.pdf) . Construction and maintenance personnel shall be made aware of the Blanding's turtle and their habitat during pre-construction meetings.

6 PERMIT AMENDMENT

The permit may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the permittee. The Commission may amend the conditions after affording the permittee and interested persons such process as is required.

7 TRANSFER OF PERMIT

The permittee may request at any time that the Commission transfer this permit to another person or entity. The permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer.

The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the permittee, the new permittee, and interested persons such process as is required.

8 REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minnesota Rule 7850.5100 to revoke or suspend the permit.

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
HIGH-VOLTAGE TRANSMISSION LINES**

A. Purpose

To establish a uniform and timely method of reporting complaints received by the permittees concerning permit conditions for site preparation, construction, cleanup and restoration, operation and resolution of such complaints.

B. Scope

This document describes complaint reporting procedures and frequency.

C. Applicability

The procedures shall be used for all complaints received by the Permittees and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minnesota Rule 7829.1500 or 7829.1700 relevant to this permit.

D. Definitions

Complaint: A verbal or written statement presented to the permittees by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other route and associated facilities permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A complaint which, despite the good faith efforts of the permittees and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing

The permittees shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:

- Name of complainant, address, phone number, and e-mail address.
- Precise property description or parcel number.
- Name of permittees representative receiving complaint and date of receipt.
- Nature of complaint and the applicable permit conditions(s).
- Activities undertaken to resolve the complaint.
- Final disposition of the complaint.

The permittees shall designate an individual to summarize complaints for the Commission. This person's name, phone number and email address shall accompany all complaint submittals.

A person presenting the complaint should to the extent possible, include the following information in their communications:

- Name, address, phone number, and e-mail address.
- Date
- Tract or parcel
- Whether the complaint relates to (1) a permit matter, or (2) a compliance issue.

F. Reporting Requirements

The permittees shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to High-Voltage Transmission Line Permit Compliance, 1-800-657-3794 (voice messages are acceptable), or by e-mail to: DOC.energypermitcompliance@state.mn.us.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be Filed to Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, using the Minnesota Department of Commerce eDocket system (see eFiling instructions attached to this permit).

If no complaints were received during the preceding month, the permittees shall submit (eFile) a summary indicating that no complaints were received.

G. Complaints Received by the Commission or Office of Energy Security

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittees.

H. Commission Process for Unresolved Complaints

Initial Screening: Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantial permit issues shall be processed and resolved by the Commission. Staff shall notify permittees and appropriate person(s) if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the staff notification. Staff shall present briefing papers to the Commission, which shall resolve the complaint within twenty days of submission of the briefing papers.

Permittees Contacts for Complaints

Complaints shall be sent to:

Joseph G. Sedarski
Xcel Energy
414 Nicollet Mall, MP-8
Minneapolis, MN 55401

Telephone: (612) 330-6435

Email: joseph.g.sedarski@xcelenergy.com