BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

	Docket No. EL06-002
In the Matter of the Application By Otter Tail Power Company on behalf of Seven Regional Utilities For A Permit to Construct 5.45 Miles of 230 KV Transmission Line, 33 miles of 345 Transmission Line, the Big Stone 345 kV Substation and Modification of the Big Stone 230 kV Substation	**STIPULATION**

It is hereby stipulated and agreed by and between Otter Tail Power Company, on behalf of seven regional utility companies (the "Applicants"), the Staff of the Public Utilities Commission ("Staff") of South Dakota, and the City of Gary, South Dakota ("City"), that the following Findings of Fact and Conclusions of Law, and an appropriate Order consistent with said Findings of Fact and Conclusions of Law may be adopted by the Public Utilities Commission of South Dakota (the "Commission") in the above-captioned matter. In support of their Application for a Route Permit for High Voltage Transmission Lines in Eastern South Dakota ("the Application"), the Applicants do hereby offer this Stipulation, the Application filed January 17, 2006, the Supplemental and Amended Information for the Application dated November 10, 2006 and December 18, 2006, and all responses submitted by the Applicants to the Staff's data requests. Staff offers no answering testimony or exhibits conditioned upon the Commission accepting the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

INTRODUCTION

1. **The Applicants.** The Applicants are seven regional utilities – Otter Tail Corporation dba Otter Tail Power Company, Central Minnesota Municipal Power Agency, Great River Energy, Heartland Consumers Power District, Montana-Dakota Utilities Co., Southern Minnesota Municipal Power Agency and Western Minnesota Municipal Power Agency (as represented by Missouri River Energy Services). The Big Stone 345 kV substation will be constructed prior to the Big Stone to Granite Falls line operating at 345

kV, which is dependent on other regional facilities which are in the process of being permitted in Minnesota.

2. **The Project.** The Applicants seek a construction permit designating a route and authorizing construction of two new transmission lines in South Dakota. The proposed project ("Project") for the transmission permit will be comprised of the South Dakota portion of two new high voltage transmission lines from the Big Stone 230 kV Substation to termination points at substations in Minnesota:

- One new transmission line will run from the Big Stone 230 kV Substation in South Dakota to the Morris Substation near Morris, Minnesota, a total of approximately 45 miles. Approximately 4.45 miles of the new 230 kV line will be built in South Dakota.

- The second transmission line will run from the Big Stone 230 kV Substation to Granite Falls Substation near Granite Falls, Minnesota, a distance of approximately 88 miles, 33 miles of which will be in the state of South Dakota.

- The Big Stone to Morris transmission line will be constructed at 230 kV. The Granite Falls transmission line will be constructed at 345 kV but operated initially at 230 kV.

- In addition, modifications of the Big Stone 230 kV Substation will also be required as part of the Project, and a new Big Stone 345 kV Substation will be constructed when other regional facilities are built which will allow this line to be operated at 345 kV.

PURPOSE OF FACILITY

3. The new transmission lines the Applicants seek through this application are needed for two primary reasons:

- To provide interconnection service to accommodate the proposed 600 MW Big Stone Plant II ("BSP II") facility; and

- To increase capacity and improve reliability of the electric transmission system in western/southwestern Minnesota and eastern South Dakota and to support future independent transmission projects in the region, in particular a 345 kV transmission line planned to connect the Buffalo Ridge area with the Twin Cities metro area.

DESCRIPTION OF FACILITY

4. Transmission lines

The Morris Transmission Line:

Approximately four miles of the new transmission line from Big Stone to Morris will be in South Dakota. The route for this transmission line is south (approximately 1.25 miles) from the existing 230 kV Big Stone Substation (Big Stone 230 kV Substation) to near the site of the new 345 kV Big Stone Substation (Big Stone 345 kV Substation), then southeast approximately one mile to U.S. Highway 12, then east into Minnesota along the existing right-of-way ("ROW") of a 115 kV transmission line.

The Granite Falls Transmission Line:

The route for the Big Stone to Granite Falls transmission line has a 230 kV segment that parallels the 230 kV Morris transmission line 1.25 miles from the Big Stone 230 kV Substation to the Big Stone 345 kV Substation. The transmission line built for 345 kV will travel from the Big Stone 345 kV Substation approximately 33 miles to near the city of Gary, South Dakota before turning east to the Minnesota border and on to the substation at Canby, Minnesota and then to the Granite Falls Substation, a total of approximately 88 miles. The route in South Dakota is described in the following segments.

SEGMENT A (5.3 MILES):

This segment of transmission line will consist of new single circuit 345 kV transmission line constructed from the Big Stone 345 kV Substation east and then south towards U.S. Highway 12, to 150th Street near Section 18 of Alban Township 120N, Range 47W in Grant County, South Dakota.

SEGMENT B (22.6 MILES):

This segment will consist of a new single circuit 345 kV transmission line constructed south of Segment A traveling south to Section 6 of Glenwood Township, 116N, Range 47W in Deuel County.

SEGMENT C (4.8 MILES):

This segment will consist of a new single circuit 345 kV transmission line constructed south of Segment B. The segment will travel southeast to the southwest corner of 176th Street and County Road 310 or 488th Avenue to the South Dakota endpoint in Section 22 of Township 116N, Range 47W, north of Gary, South Dakota. This segment will travel in a valley to the east of the Blair Substation crossing under the existing Western Area Power Administration 230 kV transmission line and will then cross over the Big Stone to Blair 230 kV transmission line to the South Dakota border crossing.

Hankinson 230 kV Transmission Line Relocation

The project will also require the relocation of approximately 0.5 miles of the Hankinson 230 kV transmission line to the south and west on Big Stone property to allow room for the BSP II plant construction.

5. **Substations**

Big Stone 230 kV Substation Upgrade:

The Big Stone 230 kV Substation, located south of the existing Big Stone Plant ("BSP"), will require upgrading to handle the additional 230 kV transmission lines and the 230 kV connection to the new generator. The Applicants will require a slight expansion of the present substation area by approximately 50 feet by 375 feet or 0.43 acres located on plant property.

Big Stone 345 kV Substation Construction:

A new Big Stone 345 kV Substation will be constructed approximately 1.25 miles south of the Big Stone 230 kV Substation and one mile north of U.S. Highway 12 in the NE ¼ of the NW ¼ of section 24, Township 121N, range 47W of Grant County, South Dakota. Approximately 600 x 600 feet or 8.3 acres of area will be required for the new substation. The substation will consist of a 230 kV, three position bus configuration with two 230/345 kV transformers, and a 345 kV two breaker bus configuration. A new control house and a fenced area of approximately 600 x 600 feet or 8.3 acres will be required. The substation will be owned by the Applicants and operated by Otter Tail.

6. **Deviations From Described Centerline**

The location of the centerline of the transmission lines is provided in the Detailed Route Maps itemized as Appendix A.1, A.2, A.3, A.4 and A.5 received by the Commission on November 13, 2006. It might be necessary to deviate slightly from the centerline to accommodate engineering and applicable safety and construction requirements based upon actual conditions encountered during construction.

ESTIMATED COST OF FACILITY

7. The Applicants estimate that the facilities to be constructed in South Dakota will cost approximately $37.8 million in 2006 dollars. The entire transmission project is estimated to cost approximately $110 million in 2006 dollars.

The following Application Table 3 provides a breakdown of the transmission and substation costs of the Project:

(APPLICATION TABLE 3)
FACILITY COSTS

Facility	Distance (miles)	Construction Costs per mile (Average)	Right-of-Way Costs per mile	Total Cost
Granite Falls Route (345 kV)	33	$580,000	$60,000	$21 Million
Morris Route (230 kV)	4.45	$390,000	$60,000	$2 Million
230 kV connection from Big Stone 230 kV Substation to Big Stone 345 kV Substation – Two Transmission Lines	1.25	$480,000	$60,000	675,000
Big Stone 230 kV Substation Upgrade	NA	NA	NA	$4.2 Million
Big Stone 345 kV Substation	NA	NA	NA	$9.5 Million
230 kV transmission line reroute between Big Stone and Hankinson, ND	0.9	$450,000	NA	$400,000
Total Facility Costs				**$37.8 Million**

8. Transmission line costs include items related to engineering, surveying, materials, labor and equipment. Annual operation and maintenance costs are estimated to be approximately $30,000 per year for the transmission lines and $10,000 to $15,000 per year for the substations and are dependent on setting, amount of vegetation management necessary, storm damage occurrences, structure types, age of the transmission line, etc. It is anticipated that very little maintenance will be required for the first several years since the transmission line will be new. These costs do not include any costs related to restoration or mitigation.

DEMAND FOR THE FACILITIES

9. The Mid-Continent Area Power Pool ("MAPP"), an association of electric Applicants and other electric industry participants organized in 1972 for the purpose of pooling generation and transmission facilities, predicts that the region's electricity demand will grow by more than 15 percent over the next decade, according to MAPP's 2005 Load and Capability Report, a copy of which was submitted by the Applicants in their responses to Staff's First Data Request. MAPP also predicts that present excess capacity within the service areas will be depleted in five years. The Applicants determined that the best way to begin to meet this increasing demand is to build a new 600 MW baseload unit at the BSP.

10. No new baseload facilities have been built in the region since the 1980s. Also, no major transmission facilities have been constructed since the 1980s and the existing transmission system is nearly at its capacity.

11. The Applicants serve retail and wholesale customers, including rural electric cooperatives and municipal utilities where peak load demands range from a low of approximately 90 MW for the smallest utility to 2,500 MW for the largest utility. Generation deficits are predicted to occur by the year 2011. The MAPP region's energy requirements are expected to grow by more than 15 percent over the next nine years and current excess capacity is expected to be gone within the next five years. The facility will provide outlet capacity for the proposed 600 MW BSP II baseload generation project and will maintain the reliability of transmission in the region.

12. Otter Tail completed a draft BSP II Generator Interconnection Study for the Midwest Independent Transmission System Operator ("MISO") in November 2004 ("the Interconnection Study"). The purpose of the study was to identify the impacts the proposed BSP II would have on the existing transmission system including prior interconnection requests in the MISO and Western queues. The Interconnection Study found that without additional transmission infrastructure, a second unit at Big Stone would overload the current system, resulting in severe violations of the regional reliability criteria. The final approval from MISO is expected in January of 2007, while the Mid-Continent Area Power Pool's Design Review Subcommittee has approved these studies.

SITE DESCRIPTION

13. The transmission lines for which this Application is submitted include the Granite Falls 345 kV transmission line from the Big Stone 345 kV Substation to the Granite Falls Substation near Granite Falls, Minnesota; the 230 kV transmission line which connects the 345 kV transmission line to the Big Stone 230 kV Substation; and the Morris 230 kV transmission line from the Big Stone 230 kV Substation to the Morris Substation near Morris, Minnesota. The two 230 kV transmission lines will be located in Grant County and the 345 kV transmission line will be located in Grant and Deuel counties. The routes are shown on an aerial photo backdrop in the supplemental filing in the notice provided November 10, 2006. The Granite Falls 345 kV transmission line is the 33-mile South Dakota portion of an 88-mile 345 kV transmission project. The 230 kV transmission line connector will be approximately 1.25 miles long and the Morris 230 kV transmission line is an approximate 4.45-mile portion of a 44.7 mile 230 kV transmission project.

14. The northern portion of the facility is located in Grant County and the southern portion in Deuel County. The location by Township, Range and Section is listed in Application Table 4.

(APPLICATION TABLE 4)
PROPOSED FACILITY LOCATIONS BY COUNTY, TOWNSHIP, RANGE AND SECTION

Facility	County	Township	Range	Section
Granite Falls Route (345 kV)	Grant	121N	47W	24,25,36
	Grant	120N	47W	6,7,8,17,20,29,30,31
	Grant	118N	47W	6,7,18,19,30,31
	Grant	119N	47W	6,7,18.19.30,31
	Deuel	117N	47W	6,7,18,19,30,31
	Deuel	116N	47W	5,6,8,16,17,21,22
Morris Route (230 kV)	Grant	121N	46W	17,18,19, 20
	Grant	121N	47W	12,13,24
230 kV connection between Big Stone 230 kV Substation and Big Stone 345 kV Substation	Grant	121N	47W	12,13, 24
230 kV transmission line reroute between Big Stone and Hankinson, ND	Grant	121N	47W	12
Big Stone 230 kV Substation	Grant	121N	47W	12
Big Stone 345 kV Substation	Grant	121N	47W	24

15. **Cemeteries.** There are two cemeteries within a mile of the transmission route in Grant County: St. Charles Cemetery (Big Stone Township) and St. John's Cemetery (Alban Township).

There is one cemetery within a mile of the transmission route in Deuel County: Antelope Valley Cemetery (Antelope Valley Township).

16. **Historical Properties.** The Federal EIS Programmatic Agreement sets limits on the Area of Potential Effect ("APE") of 0.25 mile from the transmission line. The proposed route is within 0.25 mile of three known historical properties. The three historical properties are historic railroads: Burlington Northern Railroad, Chicago, Milwaukee, St. Paul & Pacific Railroad, and Minneapolis & St. Louis Railroad. All of these previously inventoried standing structures are listed on the National Register of Historic Places ("NRHP").

17. **Public Facilities.** Public facilities along the proposed route include public infrastructure such as distribution lines, transmission lines, rural water systems and public roadways.

ALTERNATIVE SITES

18. The Applicants did an extensive review of eleven transmission alternatives, considering such factors as capital cost, reliability, system power losses, and impacts to known constrained interfaces in the region.

19. Five transmission interconnection alternatives from the initial eleven alternatives were selected for further analysis. The five alternatives under consideration all involved construction of a new 230 kV transmission line from Big Stone to Canby and an upgrade of the existing 115 kV to 230 kV transmission line between Canby and Granite Falls. After discussing the five alternatives at the April 2004 MISO scoping meeting, the participants selected two of the five alternatives for further analysis. One alternative included the upgrade of the 115 kV transmission line to a 230 kV transmission line from Big Stone to the Morris Substation near Morris, Minnesota. The other included a new 230 kV transmission line to Willmar. Both alternatives also included a Big Stone to Granite Falls 230 kV transmission line. After review of additional regional studies, the 230 kV transmission line from Big Stone to Granite Falls was upgraded to a 345 kV transmission line to meet future capacity needs.

20. Because Minnesota law requires a utility proposing to construct a 345 kV transmission line to identify both a preferred route and at least one alternative route, two alternatives have been considered for the Granite Falls 345 kV transmission line route in South Dakota. The preferred route travels due south for approximately 33 miles from the Big Stone 345 kV Substation to the north side of Gary, South Dakota where it crosses the Minnesota/South Dakota border and travels east to Granite Falls, Minnesota. The alternative route travels due south of the Big Stone 345 kV Substation approximately five miles where it turns due east to follow 150th Street for approximately two miles to the Minnesota/South Dakota border. The transmission line then travels south in western Minnesota to Canby, Minnesota (*see* Application Appendix A.6).

21. The assessment of alternatives, coupled with efforts to address specific landowner issues, established the proposed routes for the transmission lines. The Applicants believe the proposed Project represents the best alternative in terms of meeting customer, landowner, legal and regulatory concerns, while minimizing impacts to the environment and existing land use.

ENVIRONMENTAL FACTORS AND PHYSICAL ENVIRONMENT

22. The Applicants have provided environmental information as part of its Application. The existing environment and estimates of changes and impacts to the existing environment are found in sections 9.0 to 18.0 of the Application. No significant detrimental environmental impacts are expected from construction or operation of the proposed transmission facility.

23. The regional geology, including topography, economic depositions, soil types, and potential for erosion or sedimentation, has been analyzed by the Applicants and no detrimental geological conditions have been identified for the Project area.

24. **Regional Geology.** The facility lies within the Northern Glaciated Plains Ecoregion. The regional geology along the route consists of Des Moines lobe and Superior lobe deposits that overlie Precambrian and Cretaceous bedrock. The project route generally lies northeast of the Coteau des Prairies Plateau, which dominates the regional topography of southwestern Minnesota and eastern South Dakota. The Glacial River

Warren floodplain (now occupied by the Minnesota River) defines much of the surfical geology in the region.

25. **Topography.** The topography along the transmission corridor is mainly flat to slightly rolling in the northern half while the southern half is more variable and incised by many small tributary creeks that eventually feed into the Minnesota River. Steep slopes are presumed to exist in areas where the transmission corridor passes over these stream valleys. The area south of Lost Creek (in the southern half of the route) is particularly impacted by many stream valleys.

26. **Potential for Erosion and Sedimentation.** The Grant and Deuel County digital Soil Survey data does not contain information regarding the potential for erosion or sedimentation associated with specific soil series. In general, areas with steep slopes, dry soils and/or minimal vegetative cover are at the greatest risk of erosion. Within the facility area, the potential for erosion is highest along steep stream banks along the Whetstone River and Yellow Bank River and their tributaries. Soil units within the facility area that have moderately steep to steep slopes (nine to 40 percent slopes) include the Buse Loam, the Buse-Barnes loams, the Buse-Forman loams, Forman-Buse loams, the Sioux-Renshaw complex, and the Sisseton Loam.

The potential for erosion near the Whetstone and Yellow Bank Rivers during construction will be minimized because construction equipment will not cross the Rivers. In addition, the construction plans will be developed to keep equipment away from these areas. Best management practices (BMP), such as sediment fences and revegetation within steep areas, are proposed to minimize erosion and sedimentation resulting from the facility. Specific plans to address these issues will be developed prior to construction, based on the locations of the structures and access roads. No significant impacts related to the increase in potential for erosion are therefore expected because of construction of the facility if these measures are taken.

27. **Economic Deposits**. Aggregate sites along the South Dakota route were identified by site reconnaissance and aerial photographs. Governmental database listings of sites are not available at this time. Based on these sources, granite quarries and gravel pits were mainly identified in the northern portion of the corridor. These include:

- A gravel pit located in section 13 of Township 121N, Range 47W
- A granite quarry is located in parts of sections 7, 8, 17, and 18 of Township 120N, Range 47W
- Rock and/or aggregate mining operations located in section 33 of Township 120N, Range 47W
- Rock and/or aggregate mining operations located in sections 3, 4, and 10 of Township 119N, Range 47W,

The continued expansion of the mined areas is unknown. No other aggregate sites were identified within one mile of the route.

28. **Hydrology**. The facility is located in the Minnesota River Basin. Within the facility area, surface water generally flows into the Whetstone River, the North and South Forks of the Yellow Bank River or their tributaries, or tributaries to the Lac Qui Parle River where it then flows east to the Minnesota River. Surface water drainage patterns before and after facility construction are shown in map JCO0004003 in data response 1-4.

Within the facility area, the 230 KV transmission lines from the Big Stone 230 KV Substation to the Big Stone 345 KV Substation cross the Whetstone River. Segment B crosses both the North and South Forks of the Yellow Bank River, Lost Creek and Crow Creek, as well as several smaller tributaries.

29. **Soil Type**. Soils within the transmission line routes can be grouped by soil associations. An association is a group of individual soil series that occur together in a characteristic geographic pattern with a distinctive pattern of soils, relief and drainage. Each soil association is typically composed of one or more major soils and one or more minor soil components. Soil associations are defined by each county's Natural Resources Conservation Service (NRCS) office. Within the facility area, eight soil associations occur: Barnes-Flom-Buse (244), Brandt-Estelline-Fordville (127), Fordville-Renshaw-Southam (128), Forman-Aastad-Buse (135), Heimdal-Sisseton-Svea (138), Lamoure-La Prairie-Rauville (248), Ludden-Lamoure-Ladelle (139) and Peever-Forman-Tonka (136).

Approximately 60 percent of the land within the transmission line ROW contains soil that is listed as prime farmland; approximately 12 percent of the soil is listed as prime farmland when drained. Prime farmlands are determined by the South Dakota NRCS to have adequate potential of hydrogen (pH), water supply, growing season length and temperature for growing crops and are not excessively erodible or wet throughout the growing season.

30. **Health and Welfare.** The proposed alignment for the transmission line would minimize changes and impacts to the existing environment by following existing property boundaries, paralleling township and county roads, siting in areas with compatible land use and minimizing the need to cross environmentally sensitive or significant features. The application demonstrates that the proposed project will not have a significant impact on all factors evaluated. It is not anticipated that this project will create any significant direct, cumulative or synergistic hazards to the health and welfare of human, plant or animal communities.

31. **Surface Water Drainage.** No detrimental effects on surface water drainage patterns are anticipated as a result of construction of the facility. The Applicants intend the Big Stone 345 kV Substation drainage pattern to flow away from the Whetstone River.

32. **Subsidence Avoidance.** Areas prone to subsidence will mainly be avoided in the construction of the transmission line by avoiding or spanning wetland areas or any soils prone to sinking or settling. When possible, transmission lines should span water body crossings and towers should be placed on stable, level ground on either side of the water body. The proposed transmission facilities will be designed and constructed in accordance with all applicable codes and will incorporate proven methods and standards

to address potential structural difficulties associated with seismic, subsidence or slope instability.

33. **Seismic Activity.** No earthquakes have been recorded in either Grant or Deuel Counties. The risk of an earthquake in the Project area exists but is minimal, and the likelihood of damages to structures is even lower.

34. **Current or Planned Water Use.** The proposed route for the transmission line will not require water or dewatering, and there will be no impact from the facility on either current or planned water uses by communities, agriculture, recreation, fish or wildlife. The facility will have no impact on either municipal or private water uses in the facility area. No water storage, reprocessing or cooling is required for either the construction or operation of the facility. The facility will not require deep well injection. The proposed route for the transmission line will cross the rural water system at eight points along the route.

35. **Surface and Groundwater Impacts.** The Applicants will employ best management practices during facility construction to prevent erosion of sediment to surface water bodies across which the facility will run. No significant impacts to existing drainage patterns are expected as a result of the proposed transmission facility and all rivers and streams are expected to be spanned. The surface water drainage pattern at the proposed Big Stone 345 kV Substation will be altered slightly due to grading requirements.

36. Ozone and nitrogen oxides produced by the transmission lines will have negligible effects for impacting the environment.

37. **Terrestrial Ecosystems.** The Applicants will minimize impacts to the terrestrial ecosystems. Terrestrial ecosystems will not be detrimentally impacted by the proposed transmission facility. There are no occurrences of state threatened, endangered, rare or special concern terrestrial species within one mile of the proposed route.

38. **Wildlife.** There is minimal potential for the displacement of wildlife and loss of habitat from construction of the proposed transmission facility. There are several aquatic wildlife that are listed as state threatened, endangered, rare and special concern species within one mile of the proposed route. These sepecies are listed in item 41.

39. **Avian.** To mitigate avian collisions with the transmission lines, the Applicants will work with the Game Fish and Parks Department and U.S. Fish and Wildlife Service to identify any areas that may require marking transmission line shield wires and/or use alternate structures to reduce collisions. Applicants will also attempt to avoid areas known as major flyways or migratory resting spots. Design standards will provide adequate spacing between conductors, or between a conductor and a grounding device, to mitigate or eliminate the risk of electrocution of birds with large wingspans, such as raptors.

EFFECT ON AQUATIC ECOSYSTEMS

40. The South Dakota Natural Heritage Database listed several occurrences of state threatened, endangered, rare or special concern aquatic species within one mile of the

facility. All of the listed species are associated with surface waterbodies such as the Whetstone and Yellow Bank Rivers. Application Table 5 lists the special status species located within one mile of the facility.

(APPLICATION TABLE 5)
SPECIAL STATUS SPECIES

COMMON NAME	NUMBER OF OCCURRENCES	SCIENTIFIC NAME	FEDERAL STATUS	SD STATUS*	STATE RANK**
Threeridge mussel	1	*Amblema plicata*	Not Listed	None	2
Cylindrical Papershell mussel	2	*Anodontoides ferussacianus*	Not Listed	None	4
Spiny Softshell mussel	1	*Apalone spinifera*	Not Listed	None	2
Wabash Pigtoe mussel	2	*Fusconaia flava*	Not Listed	None	1
Plain Pocketbook mussel	1	*Lampsilis cardium*	Not Listed	None	1
Fatmucket mussel	1	*Lampsilis siliquoidea*	Not Listed	None	4
Creek Heelsplitter mussel	2	*Lasmigona compressa*	Not Listed	None	1
Northern River Otter	1	*Lontra canadensis*	Not Listed	T	2
Golden Redhorse	3	*Moxostoma erythrurum*	Not Listed	None	H
Hornyhead Chub	1	*Nocomis biguttatus*	Not Listed	None	3
Rosyface Shiner	2	*Notropis rubellus*	Not Listed	None	2
Slenderhead Darter	1	*Percina phoxocephala*	Not Listed	None	X
Northern Redbelly Dace	1	*Phoxinus eos*	Not Listed	T	2
Creeper mussel	2	*Strophitus undulatus*	Not Listed	None	3
Lilliput mussel	2	*Toxolasma parvus*	Not Listed	None	3
Central Mudminnow	1	*Umbra limi*	Not Listed	E	1

* E – Endangered; T – Threatened; None – no legal status, data being gathered for possible future listing;

** State rank is assigned to species and terrestrial communities to reflect the extent and condition of that element. Ranks range from 1 – in greatest need of conservation, to 5 – secure under present conditions. X

– extirpated, species believed to be extirpated from the state; H – historical, species occurred historically in state but has not been verified in the last 20 years.

Additionally, a survey conducted in the summer 2006 did document northern river otters within the Whetstone River within a mile of the proposed crossing. The route crossing will not impact this specie's habitat because the line will span all rivers and structures will be outside of the river banks. The presence of the river otters was discussed with Doug Backlund of the South Dakota Department of Game, Fish and Parks ("SD GFP") on July 27, 2006. Best Management Practices ("BMPs") were discussed and coordination with the SD GFP will occur prior to construction to avoid potential impacts to the river otters.

41. **Surface Water Quality.** During construction there is the possibility of sediment reaching surface waters as the ground is disturbed by excavation, grading and construction traffic. The facility is not expected to affect ammonia, organic matter or dissolved oxygen levels within the watersheds. Once the facility is completed, it will have no impact on surface water quality. Maintaining water quality during construction throughout the facility will minimize potential impacts to rare and common aquatic organisms and the aquatic environment.

42. **Wetlands**. The Applicants will avoid major disturbance of individual wetlands and drainage systems during construction. All wetlands along the facility corridor can be spanned by the transmission lines, which will have average spans of 700 to 800 feet, and a maximum span of 1,000 feet. No construction will occur within the Whetstone River, the North or South Forks of the Yellow Bank River, Mud Creek, Lost Creek, Crow Creek or the West Fork of the Lac Qui Parle River streambeds. These waterways will be spanned by the transmission lines; however construction may impact areas adjacent to these waterbodies.

43. **Sediment Control.** The Applicants will also implement appropriate best management practices to minimize the amount of erosion and sedimentation that could potentially impact wetlands and waterways. Temporary erosion and sediment control methods will be properly placed, monitored and maintained adjacent to water resources. These erosion control methods will remain in place until work areas become re-vegetated or are stable.

LAND USE

44. **Existing Land Use.** Land use in the facility area is primarily agricultural with a mixture of row crops and pastureland. In Grant County, the northern portion of the facility crosses areas of several different existing and planned land uses. A portion of the route outside Big Stone City is zoned as an area of development transition, meaning the county anticipates a change from the existing land use. The majority of the route is zoned for agricultural uses.

45. In addition to the agricultural and rural residential land uses that dominate the facility area, there are pockets of commercial and industrial land use near Big Stone City. The existing BSP site and Big Stone 230 kV Substation are zoned for industrial use. Currently, the proposed site for the Big Stone 345 kV Substation is zoned for agricultural use.

46. The facility will be located primarily on private land that is zoned as agricultural, and regulated by Grant and Deuel County land use plans and ordinances. The only publicly owned land directly affected by the facility is roadway ROW. The future site of the Big Stone 345 kV Substation will require rezoning. No other land use changes will occur beyond the immediate footprint of the facility.

47. The facility is compatible with the existing land uses in the area. The Granite Falls 345 kV transmission line route parallels roadways for five of the 33-mile length. Pole placement siting in areas where cross-country ROW is necessary has been planned to minimize impacts to farming operations. The 230 kV transmission line route follows an existing transmission line route from U.S. Highway 12 to the Minnesota border.

48. There will be some short-term impacts to agriculture from construction. Once the transmission line is in operation, only approximately 0.7 acres will be permanently removed from agricultural production in order to accommodate the foundations for the preferred two pole H-frame structures.

49. **Homes, Businesses, and Persons Displaced.** No homes or businesses will be displaced by the facility. The Granite Falls 345 kV transmission line route comes within 1,000 feet of fifteen homes; the nearest of these homes is approximately 260 feet from the transmission line. The 230 kV transmission line route comes within 1000 feet of six residences; the nearest of these homes is approximately 270 feet. The 230 kV transmission line from the Big Stone 230 kV Substation to the 345 kV Substation comes within 1,000 feet of one home, as the home is approximately 850 feet away.

50. **Noise**. It is not expected that noise from the facility will exceed the typical background noise levels currently existing in the project area. The proposed transmission line and substation projects will not noticeably increase the noise level at nearby residences. Noise levels from the Big Stone 345 kV substation transformer are not expected to be audible at any potential receptor location. The nearest residence to the site is approximately 1,500 feet from the Big Stone 345 kV substation, which has active mining occurring within 500 feet of the substation property. The Big Stone 230 kV substation is on the Big Stone Plant property and is not expected to affect the background noise.

51. **Radio and Television Interference**: The proposed transmission and substation facilities are not expected to cause any radio or television interference. If it is determined that the presence or operation of the facilities may be causing a problem, the Applicants will investigate the concern and correct those problems caused by the Applicants, in accord with the Federal Communications Commission ("FCC") Rules regarding operation of such facilities.

Most electromagnetic interference to electronic communication devices such as televisions, radios and cellular telephones is the result of a failed or faulty electrical component. This is typically caused by a cracked insulator or loose hardware connection. The Applicants have trained personnel that can effectively locate and correct such problems.

Due to the inherent properties of the AM frequency band, AM radio is more easily affected by electromagnetic fields than other frequency bands. Typically, the AM frequency band realizes poor reception within close proximity of any high voltage power line. There are few measures available that can easily correct such a problem, but there should not be any homes located within an affected distance of the line. Motorists traveling directly under the line will likely experience noisy AM radio reception for a very brief period of time.

52. **Aesthetics.** The Big Stone 230 kV and 345 kV substation and associated facilities will not have a major impact on the aesthetics of the area. The landscape along the 345 kV transmission line route is currently characterized by farmlands and rolling hills. The landscape of the 230 kV transmission line is currently characterized by farmland and rolling hills. Where it does cross a higher populated area, Big Stone City, it will be double circuited with an existing 115 kV transmission line. There are no unique aesthetic resources in the area that would be impacted by this project.

AIR QUALITY

53. Deuel and Grant Counties are in compliance with both National and South Dakota Ambient Air Quality Standards.

54. State and Federal Ambient Air Quality monitoring sites are sparse in the facility area. This is primarily due to the lack of significant emission sources in the area.

55. The primary emission sources that exist near the facility include agriculture and grain processing facilities and small to medium sized manufacturing facilities.

56. During construction of the facility, the impact from limited fugitive emissions from operating construction related equipment, such as dust and diesel combustion, is expected to be minimal. BMPs for dust-suppression will be employed to mitigate and control particulate emissions during construction, if necessary.

57. Studies designed to monitor the production of ozone under transmission lines have generally been unable to detect any increase due to the transmission line facility. Once the transmission line is operational, therefore, no measurable impacts relating to ozone are expected for the facility.

TIME SCHEDULE

58. The Applicants propose an in-service date of August 2010 for the 345 kV and November 2011 for the 230 kV transmission line to Morris, Minnesota. A permitting and construction schedule for the project is provided below:

PUC Route Permit	January 17, 2007
Survey Permission and Survey	Feb 2006 – Aug 2006
Transmission Line and Substation Design	Feb 2006 – Mar 2011
ROW Acquisition	Nov 2006 – Mar 2008
Transmission Line Construction	Sept 2008 – Nov 2011
Substation Construction	Sept 2008 – Nov 2011*
Final ROW Contacts, Settlements and Cleanup	Mar 2009 – July 2012

* The Big Stone 345 kV substation will be constructed prior to the Big Stone to Granite Falls line operating at 345 kV, which is dependent on other regional facilities, which are in the process of being permitted in Minnesota.

COMMUNITY IMPACT

59. **Forecast of Socioeconomic Impacts.** The facility will not have a significant adverse impact on population, income, occupational distribution or on the integration or cohesion of communities in the facility area. The availability of reliable power in the area will have a positive effect on local businesses and the quality of service provided to the general public.

60. **Forecast of Taxation Impacts.** It is anticipated there will be some long-term beneficial impacts from the new transmission lines. These benefits include an increase to Grant and Deuel Counties' tax base resulting from the incremental increase in revenues from utility property taxes, which are based on the value of the facility. The actual quantitative amount of the increase in property tax has not yet been finalized and will be determined, in part, by the dates of construction, the dates of assessment, and valuation. The annual property tax impact of the transmission facility, based on the Applicants' consultation with South Dakota tax authorities, is currently estimated to be within a range of $100,000 to $224,000, based on a formula using an 85% multiple of the market value as applied to the tax rate for the applicable district.

61. **Forecast of Agricultural Impacts**. The facility will create impacts to farmland along the route; no impacts are anticipated to livestock operations. However, these impacts will be minimal and will occur primarily due to pole placement. During construction, temporary impacts such as soil compaction and crop damages within the ROW are likely to occur. Approximately 304 acres of agricultural land will be impacted temporarily by the facility. This temporary impact is from temporary roads and staging areas located along the length of the route to allow construction access to the facility. Permanent impacts to agricultural lands will result in areas where poles are placed and are estimated to total approximately 0.7 acres of the project area.

62. Wherever possible, poles will be placed so that they closely follow the roadway ROW, minimizing permanent impacts to agricultural land. To minimize loss of farmland and ensure reasonable access to the land near the poles, the Applicants intend to place the poles within 15 feet of the road ROW. Pole placement on cross-country ROW will be sited to allow area for farmers to maneuver equipment around the poles.

63. **Forecast of Transportation Impacts.** The facility will not result in any permanent impacts to the area's transportation resources. There may be some temporary impacts to local roads during the construction phase of the facility. The Applicants will work with Grant and Deuel Counties to minimize any impacts to area transportation from the facility.

64. There will be no impacts to the rail infrastructure, as the facility will span the Burlington Northern Sante Fe ("BNSF") Railway Company's Benson to Aberdeen mainline and Appleton to Yale branch railroad line.

65. **Forecast of Cultural Impacts.** The Applicants have conducted a records search and an on-site cultural resources inventory of the project area. The proposed Project is expected to have minimal, detrimental impact on the cultural resources of the area.

EMPLOYMENT ESTIMATES

66. Construction activity for the Big Stone Transmission project will require approximately 40 personnel. Of the 40 personnel, approximately 25 employees will be needed during transmission line construction and 15 workers will be required for substation construction. Additionally, part-time personnel may also be needed during the construction of the project. The estimated annual expenditures by job classification are listed in Application Table 10.

(APPLICATION TABLE 10)
ANNUAL EMPLOYMENT EXPENDITURES BY JOB CLASSIFICATIONS

Job Classification	Annual Expenditure
Linemen	$2.7 Million
Earthmovers	$250,000
Building Construction	$250,000
Relay Technicians	$225,000
Electrical Technicians	$575,000

It is not anticipated that the Project will create new permanent jobs, but it will create temporary construction jobs that will provide a one-time influx of income to the area.

FUTURE ADDITIONS AND MODIFICATION

67. The Granite Falls 345 kV transmission line will operate at 230 kV until future transmission system upgrades are completed which will allow this facility to be uprated to 345 kV. The Big Stone 345 kV Substation will be constructed prior to energizing the line from 230 kV to 345 kV.

68. The Applicants assume that there will be minor system upgrades needed in the future, but current MISO studies have not identified any additional necessary modifications that will result from this project.

TRANSMISSION FACILITY LAYOUT AND CONSTRUCTION

69. **Route Clearing.** During the acquisition process, individual property owners will be advised as to the construction schedules, the necessary access to the site, and any vegetation clearing required for the facility. To maintain North American Energy Reliability Council ("NERC") reliability standards, the ROW will be cleared of the amount of vegetation necessary to construct, operate and maintain the facility, as discussed in Section 22.1 of the applicant's Permit Application and the requirements contained in this Stipulation.

70. **Transmission Construction Procedures.** Once access to the land is granted, site preparation will begin in coordination with landowners. Vegetation interfering with safe operation of the transmission line or that would prevent construction will be removed. Additionally, underground utilities are identified in cooperation with local utility companies to minimize conflicts to the existing utilities along the routes. All materials resulting from the clearing operations will either be chipped on site or stacked in the ROW with landowner agreement for their use. If temporary removal or relocation of fences is necessary, installation of temporary or permanent gates would be coordinated with the landowner. The ROW agent also works with the landowners for early harvest of crops where possible. During the construction process, the Applicants may ask the property owner to remove or relocate equipment and livestock from the ROW. During the several months interval between the time the foundations are installed and the towers are erected, the Applicant will ensure that all areas disturbed by construction and construction access are stabilized to prevent erosion of soils.

71. **Best Management Practices.** The Applicants will follow standard construction and mitigation practices that were developed from experience with past practices as well as industry specific BMPs.

72. **Substation Construction Procedures.** A detailed construction schedule will be developed based upon availability of crews, outage restrictions for any transmission lines that may be affected, weather conditions, spring load restrictions on roads and any restrictions placed on certain areas for minimizing permanent impacts from construction.

73. **Erosion and Pollution Control.** The Applicants will provide erosion control methods to be implemented to minimize runoff during substation construction and since the projects will likely impact more than one acre, a National Pollutant Discharge Elimination System ("NPDES") permit will be acquired, as necessary. Additionally, a Storm Water Pollution Prevention Plan ("SWPPP") will be implemented in compliance with the NPDES and if necessary, a Spill Prevention, Control, and Countermeasure ("SPCC") plan will be developed or updated, as applicable.

74. **Restoration Procedures.** The construction contractor will establish a main staging area for secure, temporary storage of materials and equipment. Disturbed areas are restored to their original condition to the maximum extent practicable, as negotiated with the landowner.

75. **Maintenance Procedures.** Regular maintenance and inspections will be performed during the life of the facility to ensure its continued integrity. Generally, the Applicants will inspect the transmission lines at least once per year. Inspections will be limited to the ROW and areas where obstructions or terrain may require off-ROW access. If problems are found during inspection, repairs will be performed and the landowner will be compensated for any loss.

INFORMATION CONCERNING TRANSMISSION FACILITIES

76. **Configuration of Towers and Poles.** The Applicants will use H-frame double pole or single pole Davit arm, wood or steel structures for the 345 kV and 230 kV transmission lines, with the H-frame double pole considered the preferred structure at this time. The final type will be based on final design and an economic analysis.

77. It is anticipated that the H-frame poles will have directly embedded foundations where the poles are placed directly in a hole bored 10 to 15 feet deep and three to four feet in diameter. After the poles are placed, the holes will be backfilled with the native soil or aggregate that is approved for the site. The single poles will require concrete foundations. Structures erected on concrete will have foundations approximately six to 12 feet in diameter, and approximately 20 to 40 feet in depth. The structures will have an average height of 100 feet and an average span of 700 to 800 feet.

78. Appendix B of the Application contains diagrams of H-frame and single pole Davit arm single circuit structures for the 345 kV and 230 kV transmission lines, as well as double circuited structures for a portion of the 230 kV transmission line proposed for the Big Stone to Morris or Willmar route.

79. **Conductor Configuration.** The final selection of the optimal conductors will depend on a number of factors that will be identified during future detailed engineering studies. Each portion of transmission line associated with the project is identified below with possible conductor size and type:

Morris 230 kV Transmission Line from Big Stone 230 kV Substation to Big Stone 345 kV Substation

- 2-954 Aluminum Conductor Steel Supported (ACSS) bundled or
- 954 Aluminum Conductor Steel Supported (ACSS) or
- 2-1272 Aluminum Conductor Steel Reinforced (ACSR) bundled or
- 1272 Aluminum Conductor Steel Reinforced (ACSR) or
- 1590 ACSR

Morris 230 kV Transmission Line from Big Stone 345 kV Substation to Minnesota/South Dakota border

- 1272 ACSR (bundled) or
- 954 ACSS or
- 1590 ACSR

Granite Falls 230 kV Transmission Line from Big Stone 230 kV Substation to Big Stone 345 kV Substation

- 1590 ACSR or
- 2-954 ACSS (bundled) or
- 2-1272 ACSR (bundled)

Granite Falls 345 kV Transmission Line from Big Stone 345 kV Substation to Minnesota/South Dakota border

- 2-1272 ACSR (bundled) or
- 2-954 ACSS (bundled)

RELIABILITY AND SAFETY

80. Separate transmission circuits are needed in order to improve transmission system reliability and to obtain the maximum amount of generation from BSP II in the event that an adjacent transmission circuit is out of service.

81. Proper safeguards will be implemented for construction and operation of the facility. The facility will be designed with the local, state, Federal, and the National Electric Safety Code ("NESC") and the Applicants' standards regarding clearance to ground, clearance to crossing utilities, clearance to buildings, strength of materials and ROW widths. Construction crews will comply with local, state, NESC and the Applicants' standards regarding installation of facilities and standard construction practices. The Applicants' and industry safety procedures will be followed during and after installation of the transmission line. This will include clear signage during all construction activities.

82. The proposed transmission line will be equipped with protective devices to safeguard the public from the transmission line if an accident occurs and a structure or conductor falls to the ground. The protective devices are breakers and relays located where the transmission line connects to the substation. The protective equipment will de-energize the transmission line should such an event occur. In addition, the substation will be fenced and access limited to authorized personnel.

The proposed transmission line is designed in accordance with the following National Electric Safety Code (NESC) loading criteria with regard to extreme wind, ice and wind,

and extreme ice. For extreme wind, the design capacity is 92 mph with no ice and overload capacity of 1.1 for steel/1.33 for wood. For ice and wind, the design capacity is 0.5 inch radial ice on all conductor/structure surfaces with 40 mph winds and overload capacity of 2.5 for steel/4.0 for wood. For extreme ice, the design capacity is 1.5 inch radial ice on all conductor/structure surfaces with 40 mph winds and overload capacity of 1.0 for steel/1.0 for wood.

These design criteria are considered conservative by utility standards and utilize the industry standard assumption that icing conditions are rarely present during conditions of extremely high sustained winds (in excess of 40 mph).

83. The Granite Falls 345 kV transmission line will have a peak magnitude of electric field density of approximately 2.2 kV/m underneath the conductors one meter above ground level. The peak magnitude of electric field density for the 230 kV transmission line will be approximately 1.5 kV/m.

84. The Granite Falls 345 kV transmission line is not proposed to run parallel to any existing distribution line for long distances. No stray voltage issue, which may occur at distribution voltage levels, are anticipated with this facility because of its voltage.

RIGHT OF WAY OR CONDEMNATION REQUIREMENTS

85. The expansion of the Big Stone 230 kV Substation will not require additional real property; however, the Big Stone 345 kV Substation will require additional real property.

86. The Applicants have notified all landowners potentially affected by the facility and will notify landowners at least annually of the project progress.

87. Land options have been obtained from all but one affected landowner. A list of all the affected landowners along the proposed route was submitted to the Commission on November 10, 2006. Landowners will be provided information on the Facility as it proceeds through the construction process, through periodic newsletters. As the design of the line is further developed, contacts with the owners of affected properties will continue.

During the acquisition phase, individual property owners will be advised as to the construction schedules, needed access to the site and any vegetation clearing required for the Facility. The ROW will be cleared of the amount of vegetation necessary to construct, operate and maintain the proposed transmission lines as discussed in Section 22.1 of the Applicant's Permit Application and the requirements contained in this Stipulation. All materials, including trees if they must be removed, will either be chipped on site, stacked in the ROW with landowner agreement for their use, or disposed of and removal from the site if requested by the landowner.

Many structure locations will require soil investigation to assist with the design of the foundations. Applicant will inform the landowners at the initial survey consultation that soil borings may occur. An independent geotechnical testing company will take and analyze these borings. Survey crews also work with local utilities and the South Dakota

One-Call system to identify underground utilities along the route. This minimizes conflicts or impacts to existing utilities along the route.

Where possible, staging and lay down areas will be located within the ROW and limited to previously disturbed or developed areas. When additional property is temporarily required for construction, temporary limited easements (TLE) may be obtained from landowners for the duration of construction. TLEs will be limited to special construction access needs or additional staging or lay down areas required outside of the proposed transmission line ROW.

UNDERGROUND TRANSMISSION

88. No portion of the facility will require underground transmission.

AMENDMENT OF AND ADDITION TO PERMIT APPLICATION

89. The Application filed January 17, 2006 is amended by the Exhibits submitted November 10, 2006 and the Supplemental and Amended Information for Application dated December 18, 2006.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the subject matter and parties to this proceeding pursuant to SDCL Chapter 49-41B and ARSD 20:10:22. Subject to the findings made on the four elements of proof under SDCL 49-41B-22, the Commission has authority to grant, deny or grant upon such terms, conditions or modifications of the construction, operation and maintenance of the transmission facility as it may deem appropriate.

2. To the extent that any of the above made findings of fact are determined to be conclusions of law or mixed findings of fact and conclusions of law the same are incorporated herein by this reference as a conclusion as if set forth in full.

3. Administrative rules have the force of law and are presumed valid. *Feltrop v. Department of Social Svcs.*, 559 NW2d 883, 884 (SD 1997). An administrative agency is bound by its own rules. *Mulder v. Department of Social Svcs., 675 NW2d 212, 216 (SD 2004).*

4. The proposed transmission line is a "transmission facility" as defined in SDCL 49-41B-2.1.

5. The Application, as amended and supplemented by responses to Staff data requests and by the Supplemental and Amended Information for the Application, complies with the applicable requirements of SDCL Chapter 49-41B and ARSD 20:10:22.

6. The Project as defined herein will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD 20:10:22.

7. The Project, if constructed in accordance with the terms and conditions of this permit, will not pose a threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

8. The Project, if constructed in accordance with the terms and conditions of this permit, will not substantially impair the health, safety and welfare of the inhabitants of the siting area.

9. The Project, if constructed in accordance with the terms and conditions of this permit, will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

10. The Commission has the authority to revoke or suspend any permit granted under the South Dakota Energy Facility Permit Act for failure to comply with the terms and conditions of the permit pursuant to SDCL 49-41B-33.

11. Seven regional utilities will be the permitted owners of the Project and are the following: Otter Tail Corporation dba Otter Tail Power Company, Central Minnesota Municipal Power Agency, Great River Energy, Heartland Consumers Power District, Montana-Dakota Applicants Co., Southern Minnesota Municipal Power Agency and Western Minnesota Municipal Power Agency (as represented by Missouri River Energy Services).

12. The burden of proof on the parties on which they have the burden is by the preponderance of the evidence.

13. The Commission concludes that it needs no other information to assess the impact of the proposed transmission facility to determine if Application has met its burden of proof.

14. The Commission concludes that the Application and all required filings have been filed with the Commission in conformity with South Dakota law. All procedural requirements required under South Dakota law have been met. All data, exhibits, and related testimony have been filed.

15. The Commission concludes that the Application is supported by the Application, Responses to Staff's Data Requests and documentary evidence and satisfies all applicable requirements by SDCL.

16. The Commission concludes that the Application, as amended and supplemented, is legally and procedurally appropriate and complete. All formatting and timing requirements have been complied with. All public hearing requirements have been met.

17. The Applicants have met their burden of proof pursuant to SDCL 49-41B-22 and are entitled to a permit as provided in SDCL 49-41B-24, subject to the following:

STIPULATIONS OF TERMS AND CONDITIONS:

1. The Applicants will obtain all governmental permits that may be required by any township, county, state or federal agency or any other governmental unit for construction activity covered by that permit. Copies of any permits obtained by the Applicants shall be sent to the Commission.

2. If it becomes necessary to deviate from the described centerline to accommodate engineering and applicable safety and construction requirements based upon actual conditions encountered during construction, all landowners affected by the deviation and the Commission must be notified in writing five working days before the deviation may occur. All deviations must be approved by the Commission.

3. In order to ensure compliance with the terms and conditions of this permit pursuant to SDCL 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors and agents of the Applicants, to the extent of their interest, involved in this transmission line project be made aware of the terms and conditions of this permit.

4. The Applicants shall ensure that their employees, contractors and agents involved in right-of-way negotiations and acquisitions, right-of-way clearing, line construction and right-of-way and line maintenance understand fully and comply with the terms and conditions of this permit.

5. If during construction, the Applicants or their agents discover what may be an archaeological resource, the Applicants or their agents shall immediately cease work at that portion of the site and follow the notification procedures and protocol identified in the Federal Environmental Impact Statement Programmatic Agreement dated October 27, 2006, of which the South Dakota State Historic Preservation Officer is a signatory. Such initial protocol requires the Applicants to notify a construction or environmental inspector and Western Area Power Administration's Federal Preservation Officer of the discovery. If route changes are necessary, the Applicants must seek Commission approval.

6. In order to mitigate interference with agricultural operations during and after construction, the Applicants shall locate all structures, to the extent feasible and prudent, to minimize adverse impact and interferences with agricultural operations, shelterbelts and other land uses or activities. The Applicants shall take appropriate precautions to protect livestock and crops during construction. The Applicants shall repair all fences and gates removed or damaged during construction or maintenance unless negotiated with the landowner or designee. The Applicants shall be responsible for the repair of private roads and lanes damaged when moving equipment or when obtaining access to the right-of-way.

7. The Applicant shall provide each landowner across whose property the facility is to be constructed with the following information:

    - A copy of the Commission's Order.

- Detailed safety information describing (a) reasonable safety precautions for existing activities on or near the right-of-way; (b) known activities or uses that are presently prohibited within the right-of-way; and (c) other potential dangers or limitations within the right-of-way.

- Construction/maintenance damage compensation policies and procedures.

- The Commission's address and phone number.

8. The Applicant shall also comply with all other terms and conditions as set forth in the Findings of Fact.

9. The terms and conditions of the permit shall be made a uniform condition of construction, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied to the property in question and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis.

10. The Applicants will be expected to conform to the Avian Protection Plan Guidelines prepared by the Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service.

11. Before commencing construction, the Applicants shall furnish an indemnity bond in the amount of One Hundred Fifty Thousand Dollars ($150,000.00) to comply with the requirements of SDCL 49-41B-38.

12. If the presence or operation of the transmission lines or substation causes interference with radio, television or any legal communication device, the Applicants shall take all appropriate action to minimize any such interference and make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the transmission facility and substation. This mitigation requirement shall apply to homes or other structures in place at the time of construction but shall not apply to any dwellings or other structures built after construction of the transmission facilities and substation approved in this Permit have been completed.

13. The Applicants will comply with all recommendations of the final Environmental Impact Statement.

14. Before construction may begin on the facility, the Applicant shall file a copy of the Plan and Profile Maps with the Commission.

Dated this 18 day of DECEMBER, 2006

Dean Pawlowski
Big Stone Transmission Project Manager
Otter Tail Power Company

Dated this 20th day of December, 2006

Karen E. Cremer
Staff Attorney
Public Utilities Commission of South Dakota

Dated this _____ day of _____, 2006

Jeff Engesser
Mayor
City of Gary, South Dakota

Dated this 18 day of DECEMBER, 2006

Dean Pawlowski
Big Stone Transmission Project Manager
Otter Tail Power Company

Dated this _____ day of _____, 2006

Karen E. Cremer
Staff Attorney
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