

September 22, 2010

Fredrikson
& BYRON, P.A.

VIA HAND DELIVERY

RECEIVED

SEP 22 2010

PUBLIC SERVICE COMMISSION

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

RE: Minnkota Power Cooperative, Inc.'s Work Planned For the Center 345 kV Substation in Oliver County, North Dakota

Dear Mr. Nitschke:

Minnkota Power Cooperative (Minnkota) submits this letter pursuant to Section 49-22-03(3)(a)(3) of the North Dakota Century Code to inform the North Dakota Public Service Commission (Commission) of work planned for the Center 345 kV Substation, which is located in Oliver County near Center, North Dakota. Pursuant to Section 49-22-03(3)(a), the work that Minnkota has planned for the Center 345 kV Substation is specifically excluded from the definition of "construction" under the Siting Act because the activities proposed: (1) fall within the boundaries of a certificate and a permit previously issued by the Commission; and (2) do not affect any known exclusion or avoidance area. Therefore, Minnkota is not required to obtain a certificate or a permit from the Commission pursuant to Section 49-22-07 of the North Dakota Century Code prior to Minnkota undertaking the work planned for the Center 345 kV Substation.

A discussion of the work Minnkota has planned for the Center 345 kV Substation, the previously issued certificate and permit that cover the Center 345 kV Substation, and how the planned work will conform to the requirements of Section 49-22-03(3)(a)(2) and (3) of the North Dakota Century Code is provided below. In addition, an affidavit in support of this letter is enclosed. See Affidavit of Mike Hennes (Hennes Aff.).

I. The Work Planned For the Center 345 kV Substation.

The work planned for the Center 345 kV Substation consists of installing concrete footings or foundation slabs (as indicated below) for the following equipment:

1. Two sets of 345 kV circuit breakers (which require a total of six footings);
2. Two sets of 345 kV current transformers (which require a total of six footings);
3. One set of 345 kV voltage transformers (which requires a total of three footings);
4. Two control cabinets (which require two small footings);
5. One large 672 MVA, 345/230 kV power transformer (which requires a foundation slab);
6. One 345 kV switch structure (which requires four drilled pier footings);
7. One 230 kV switch structure (which requires four drilled pier footings); and
8. One voltage transformer (which requires one footing).

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PU-10-595 Filed: 9/22/2010 Pages: 40
Certification filing for Center 345 kV substation additions

Hennes Aff., ¶ 2. Items 1-4 are associated with moving the existing Center, North Dakota to Jamestown, North Dakota 345 kV Transmission Line terminus to the west bus of the Center 345 kV Substation, which will allow for installation of equipment associated with Minnkota's proposed Center, North Dakota to Grand Forks, North Dakota 345 kV Transmission Line Project, if the Commission grants Minnkota a Certificate of Corridor Compatibility and Route Permit for that project. *Id.*, ¶ 3. Items 5-8 are required in order to allow for the installation of a 672 MVA, 345/230 kV power transformer and an additional voltage transformer, which are also required in order for the substation to accommodate the proposed Center, North Dakota to Grand Forks, North Dakota 345 kV Transmission Line Project. *Id.* In total, the footings and foundation slabs will require approximately 125 cubic yards of concrete and 7000 pounds of re-bar. *Id.*, ¶ 4. A drawing depicting the foundation work planned for the Center 345 kV Substation is enclosed. *See* Hennes Aff., Exhibit A. Minnkota plans to install the footings and foundation slabs during the Fall of 2010. *Id.*, ¶ 4.

II. The Work Planned For the Center 345 kV Substation Will Fall Within the Boundaries of a Previously Issued Certificate and Permit.

As noted above, the work that Minnkota plans to undertake with respect to the Center 345 kV Substation falls within the boundaries of a certificate and a permit previously issued by the Commission. Specifically, in 1978, Montana-Dakota Utilities Company (MDU), on behalf of itself and as agent for Minnkota, Otter Tail Power Company (Otter Tail), Northwestern Public Service Company (Northwestern), and Minnesota Power and Light Company (Minnesota Power), submitted an application for a Certificate of Corridor Compatibility for a 345 kV transmission line project from the Coyote Station electric generating facility near Beulah, North Dakota, to a proposed substation, near the Milton R. Young Plant southeast of Center, North Dakota (Coyote-Center 345 kV Transmission Project), which was docketed as Case No. 9698. On August 14, 1978, the Commission issued its Findings of Fact, Conclusions of Law and Order (Certificate Order) granting Certificate of Site Compatibility for Transmission Facility Corridor No. 18 (Certificate) for the Coyote-Center 345 kV Transmission Project. *See* Hennes Aff., Exhibit B. Both the Certificate Order and the Certificate specifically referenced installation of the Center 345 kV Substation as part of the Coyote-Center 345 kV Transmission Project. *See* Hennes Aff., Exhibit B (Certificate Order at p. 4, ¶ 1, p. 5, ¶¶ 5-6, p. 12-13, ¶ 38, p. 13, ¶ 2; and Certificate).

In early 1979, MDU, on behalf of itself and Minnkota, Otter Tail, Northwestern, and Minnesota Power, submitted a Route Permit application for the Coyote-Center 345 kV Transmission Project, which was docketed as Case No. 9891. On August 27, 1979, the Commission issued its Findings of Fact, Conclusions of Law and Order (Route Permit Order) granting Permit for the Construction of a Transmission Facility No. 26 (Route Permit) for the Coyote-Center 345 kV Transmission Project. *See* Hennes Aff., Exhibit C. The Route Permit Order stated that the Center Substation would be located on a 7-acre site about one-half mile northeast of the Milton R. Young Plant, to the southeast of Center, North Dakota, and to the east of Nelson Lake, and the Route Permit stated that a new substation was to be located approximately one-half mile

northeast of the Milton R. Young Station in Oliver County, North Dakota. *See* Hennes Aff., Exhibit C (Route Permit Order at p. 3-4, ¶ 1, p. 4-5, ¶ 4, p. 5-6, ¶ 8, p. 13, ¶ 7; and Route Permit). The Center 345 kV Substation was constructed in accordance with the Certificate and Route Permit, and accompanying Orders, issued for the Coyote-Center 345 kV Transmission Project. Hennes Aff., ¶ 7.

All activities associated with installation of the footings and foundation sites identified above will occur within the boundary of the existing Center 345 kV Substation. Hennes Aff., ¶ 8. Therefore, the planned work will also occur within the boundaries the Certificate and the Route Permit issued for the Coyote-Center 345 kV Transmission Project.

III. The Work Planned For the Center 345 kV Substation Will Conform to the Requirements of All Applicable Siting Laws, Rules, and Commission Orders.

As required by Section 49-22-03(3)(a)(2) and (3) of the North Dakota Century Code, Minnkota certifies that the proposed footing and foundation site installation activities for the Center 345 kV Substation will not affect any known exclusion or avoidance area, as set forth in Section 69-06-08-02(1) and (2) of the North Dakota Administrative Code. Hennes Aff., ¶ 9. Furthermore, as required by Section 49-22-03(3)(a)(3), Minnkota certifies that, when conducting the work planned for the Center 345 kV Substation, it will comply with all applicable conditions and protections set forth in the North Dakota siting laws and rules, as well as the Commission's previously issued Orders for the Coyote-Center 345 kV Transmission Project. Hennes Aff., ¶ 10.

Should the Commission have any questions regarding this letter or the work planned for the Center 345 kV Substation, please do not hesitate to contact me.

Thank you.

Sincerely,

MOLLIE M. SMITH

MS/mms

Enclosure

cc: Mr. Jerry Lein – (w/enc.) *Via Hand Delivery*
Mr. Gerad Paul – (w/enc.) *Via Email*
Mr. Mike Hennes – (w/enc.) *Via Email*
Mr. John Graves – (w/enc.) *Via Email*

Corridor Compatibility and Route Permit for that project. Items 5-8 identified in Paragraph 2 above are required in order to allow for the installation of a 672 MVA, 345/230 kV power transformer and an additional voltage transformer, which are also required in order for the substation to accommodate the proposed Center to Grand Forks 345 kV Transmission Line Project.

4. In total, the footings and foundation slabs will require approximately 125 cubic yards of concrete and 7000 pounds of re-bar. Minnkota plans to install the footings and foundation slabs during the Fall of 2010. A drawing depicting the foundation work planned for the Center 345 kV Substation is attached hereto as **Exhibit A**.

5. A true and correct copy of the Findings of Fact, Conclusions of Law and Order granting Certificate of Site Compatibility for Transmission Facility Corridor No. 18 for the Coyote-Center 345 kV Transmission Project, dated August 14, 1978 and issued by the Commission in Case No. 9698, is attached hereto as **Exhibit B**.

6. A true and correct copy of the Findings of Fact, Conclusions of Law and Order granting Permit for the Construction of a Transmission Facility No. 26 for the Coyote-Center 345 kV Transmission Project, dated August 27, 1979 and issued by the Commission in Case No. 9891, is attached hereto as **Exhibit C**.


7. The Center 345 kV Substation was constructed in accordance with the Certificate and Route Permit, and accompanying Orders, issued for the Coyote-Center 345 kV Transmission Project, referenced in Paragraphs 5 and 6 above.

8. All activities associated with installation of the footings and foundation sites identified in Paragraph 2 above will occur within the boundary of the existing Center 345 kV Substation.

9. Minnkota certifies that the proposed footing and foundation site installation activities for the Center 345 kV Substation will not affect any known exclusion or avoidance area, as set forth in Section 69-06-08-02(1) and (2) of the North Dakota Administrative Code.

10. Minnkota certifies that, when conducting the work planned for the Center 345 kV Substation, it will comply with all applicable conditions and protections set forth in the North Dakota siting laws and rules, as well as the Commission's previously issued Orders for the Coyote-Center 345 kV Transmission Project.

FURTHER AFFIANT SAYETH NOT.



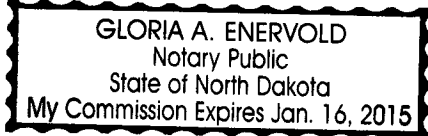
Michael Hennes

Subscribed and sworn to before me
this 21st day of September, 2010.



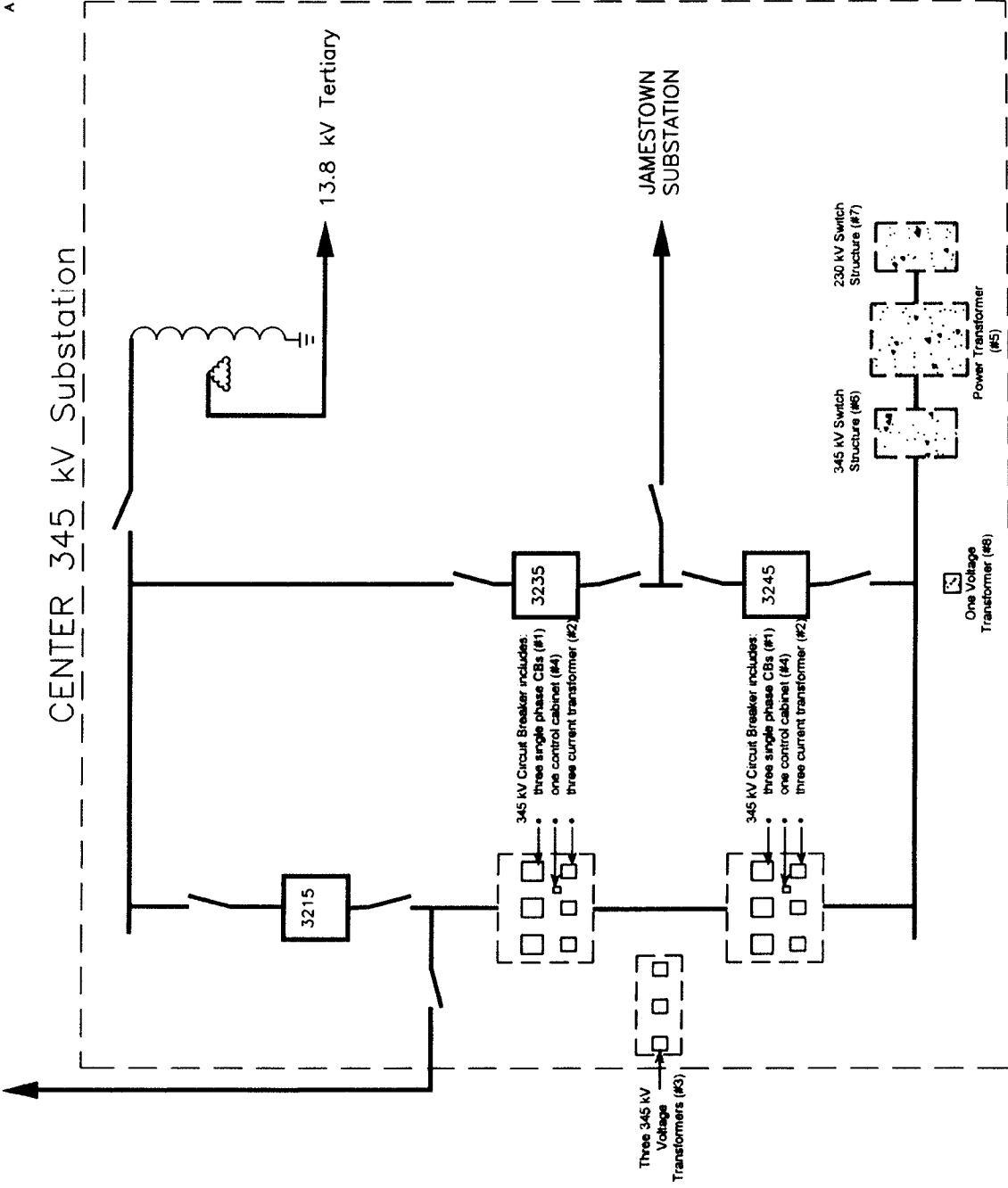
Notary Public

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CENTER 345 kV Substation

345 kV
COYOTE #1



Fall, 2010
Foundation
Additions

Exhibit A

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

In the Matter of the Application of)
Montana-Dakota Utilities Company for)
a Certificate of Corridor Compatibility)
for two 345 kV Electric Transmission)
Lines from the Coyote Station in Mercer)
County, North Dakota, to a new substa-)
tion near Center in Oliver County,)
North Dakota.)

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FINDINGS OF FACT,
CONCLUSIONS OF LAW,
AND ORDER

On January 13, 1978, Montana-Dakota Utilities Co., acting as agent for the applicants, submitted an application on behalf of itself and Minnkota Power Cooperative, Inc., Otter Tail Power Company, Northwestern Public Service Company, and Minnesota Power and Light Co. wherein a certificate of site compatibility for a transmission facility corridor was sought for an electric transmission facility within North Dakota.

On August 25, 1977, MDU submitted a letter of intent concerning this project. On September 30, 1977, the Commission, at MDU's request, waived the one-year time period specified in Rule 69-06-03-01 between the filing of the letter of intent and the application herein. On April 13, 1978, the Commission determined that the application herein was complete and scheduled a hearing for May 23, 1978, at 10:00 A.M., in Center, North Dakota. The hearing was held pursuant to notice by the Commission dated April 18, 1978, and the following appearances were entered:

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Thomas B. Tudor and Robert E. Lane, Box 2335, Bismarck, appearing for the Public Service Commission; William P. Pearce, 314 East Thayer Avenue, Bismarck, and Joseph R. Maichel, 400 North 4th Street, Bismarck, appearing for Montana-Dakota Utilities Co.; Warren H. Albrecht, Jr., P. O. Box 1436, Bismarck, appearing for North American Coal Corporation; Sterling Wagner, 721 Memorial Highway, Bismarck, appearing for Consolidation Coal Company; Jerry Sandstrom, Rural Route, Hazen, appearing as Oliver County Land Use Administrator; Oliver Light, Center, appearing as chairman of the Oliver County Water Management District; and Orville Schultz, Oliver County State's Attorney, New Salem, appearing for the Oliver County Commission.

PRELIMINARY STATEMENT

The application under consideration in this proceeding was filed by Montana-Dakota Utilities Co. acting on its own behalf and on behalf of the four other applicants. The applicants propose to own jointly an electric transmission facility which they propose to construct to allow utilization of the power to be generated by the Coyote Station generating facility certificated by the Commission in Case No. 9329. This application requests that the Commission issue a Certificate of Site Compatibility designating a corridor within which the applicants will propose a route for a 345 kV ac electric transmission facility.

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OTTER TAIL POWER COMPANY (OTP) is a privately-owned Minnesota based electric utility providing retail electric service to approximately 114,000 customers in North Dakota, South Dakota, and Minnesota, 51,000 of which are in North Dakota. Its share of the proposed facility is 35%.

MINNKOTA POWER COOPERATIVE, INC. (MPC) is a member-owned North Dakota based electric utility providing electrical generating and transmitting service to Rural Electric Cooperative distribution members located in Minnesota and North Dakota, four of which are in North Dakota. Its share of the proposed facility is 30%.

MONTANA-DAKOTA UTILITIES CO. (MDU) is a privately-owned North Dakota based combination gas and electric utility providing retail electric service to approximately 91,000 customers in North Dakota, South Dakota, Montana, and Wyoming, 52,000 of which are in North Dakota. Its share of the proposed facility is 20%.

NORTHWESTERN PUBLIC SERVICE COMPANY (NWPS) is a privately-owned South Dakota combination gas and electric utility providing retail electric service to approximately 42,000 customers in South Dakota. It provides no electric utility service in North Dakota. Its share of the proposed facility is 10%.

MINNESOTA POWER & LIGHT CO. (MP&L) is a privately-owned Minnesota based electric utility providing retail electric service in the State of Minnesota. It provides no electric utility service in the State of North Dakota. Its share of the proposed facility is 5%.

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In addition to its role as agent for the applicants, MDU has assumed the responsibility for the construction of the proposed transmission facility.

Upon consideration of all evidence of record, the Commission now makes the following:

FINDINGS OF FACT:

1. The applicants propose to construct and to operate a transmission facility consisting of a double circuit 345 kV ac electric transmission line from the Coyote Station to the proposed Coyote Substation near Beulah, and two single circuit 345 kV ac electric transmission lines from that point to the proposed Center Substation near the Milton R. Young Plant southeast of Center. The purpose of the proposed transmission facility is to transmit power generated at the Coyote Station to the presently existing transmission systems of the applicants. No existing transmission facilities are available for this purpose.

2. The projected load for the proposed facility is 400 megawatts, and each circuit will be designed to carry approximately 430 megawatts.

3. A substantial amount of the power to be transmitted by this facility, approximately 85 per cent, will be available and is expected to be utilized by electric customers in North Dakota.

4. The proposed facility, to be interconnected with the applicants' existing interconnected electric transmission systems,

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will promote the sharing of reserve generating capacity and contribute to the reliability and stability of the entire system.

5. The two single circuit lines from the Coyote Substation to the Center Substation are planned to be generally parallel and approximately 100 feet apart, on wood pole H-frame structures, the two poles of each structure being spaced 27 feet apart and the corresponding structures of the two lines being spaced approximately 70 feet apart. The minimum elevation of the pole tops will be 80 feet above the ground and the poles will be embedded a minimum of 11 feet in the ground. The approximate length of a span will be 750 feet.

6. The Coyote and Center Substations will be located on 20-acre sites near the Coyote plant and the Milton R. Young plant, respectively. The primary control center for this facility will be located at the MDU load dispatch office, with direct control from the relay house at the Coyote Substation and standby control in the power plant control room.

STATUTORY EVALUATION FACTORS

Land Resources

7. LANDSAT (earth resources satellite) imagery was used to determine the initial location of possible corridors and viable alternatives. A second major source of regional data was provided by the Dickinson District Office of the Bureau of Land Management.

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The current surface resource information available at that office is produced from photo interpretation of color infrared aerial photography.

8. State and federal agencies were contacted to gather all available data with respect to the study area and to determine areas of specific concern. The additional information obtained from state and federal agencies was incorporated onto the land use map produced from LANDSAT imagery. In this manner a constraint map was produced from which several corridors were selected for further evaluation.

9. The corridor analysis process involved the delineation of several possible corridors which would meet the beginning and termination requirements of the proposed facility, while, at the same time, avoiding as many of the identified corridor constraints as possible.

10. Routing of the proposed transmission facility through the proposed corridor will have negligible impact on the geology of the area. The region is underlain by no major fault zones or otherwise unstable areas and no geologic hazards are foreseeable. Surface materials may be slightly disturbed by construction and some habitat created by geologic processes may be affected, but disturbances can be minimized through careful choice of the proposed route.

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11. Land uses such as agriculture and grazing, which predominate within the preferred corridor, are compatible with the proposed facility, and except for the area occupied by the structures, these uses will not be restricted within the right-of-way.

12. Vegetation will be permanently removed only where the wooden structures are located. The amount of cropland temporarily removed from production during construction is estimated to be 5 acres per mile of right-of-way, or about 160 acres; the amount of cropland removed from production during the operation of the proposed facility is estimated to be 1 acre per mile of right-of-way, or about 32 acres.

13. Grading of land is not required for this project, except for leveling at the substation sites and possibly some minor grading at sidehill locations for pole installation. The only excavation required will be the holes for the pole structures and anchors, which will be backfilled and tamped after installation.

Water Resources

14. The impact of the proposed transmission facility upon groundwater will be non-existent or negligible. Construction may cause temporary increases in the sedimentation of streams crossed by the right-of-way. After construction and reclamation have been completed, the degree of erosion and sediment loading will be insignificant. Sedimentation impacts will be minimized by limiting drilling and excavation activities near water bodies and by employing hand clearing methods within 100 feet of water bodies.

Other Technologies and Systems

15. Underground installation of this system is not feasible since present technology is not adequately developed to allow underground construction of 345 kV ac lines for long distances, nor would underground installation be economically feasible even if technologically possible.

Alternative Corridor

16. The centerline length of the preferred corridor is approximately thirty-two miles, whereas the centerline length of the alternative corridor considered in this proceeding is approximately forty-two miles. A route within the alternative corridor considered herein would require the use of approximately 36 per cent more land area for the pole structures than a route within the preferred corridor.

17. The preferred corridor contains five marshes and about forty-five stock ponds; the alternative corridor contains eight marshes and fifty-four stock ponds. There is one area of recreational significance and four reservoirs within the preferred corridor; there are three areas of recreational significance and ten reservoirs within the alternative corridor.

18. Both corridors consist primarily of cropland and rangeland, and are about equal in terms of soil suitability constraints.

19. The estimated value of crops lost from production each year as a result of the land taken out of production by the proposed transmission facility is about thirty-six per cent more in the alternative corridor than in the preferred corridor.

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Economic Impact

20. The total cost of this project, including the Coyote Switchyard and Center Switchyard, is estimated at \$17,325,000.

21. It is anticipated that a substantial part of the labor force for the construction of this project can be drawn from North Dakota.

22. The economic impact of this transmission facility will include tax revenues, payments for right-of-way easements, and the assurance of making power from Coyote Station available to customers of the applicants.

Scenic Areas, Historic Sites and Structures, and Archaeological Sites

23. The proposed transmission facility can be routed through the preferred corridor without imposing any adverse effect on known significant archaeological and historical sites and structures, which can be avoided in the subsequent route selection process. The potential for disrupting unknown sites can be minimized by having an archaeological survey made of the actual route prior to construction.

24. Impacts to the aesthetic rural environment of the preferred corridor will be unavoidable simply because of the presence of the proposed transmission facility; however, such impacts can be minimized by proper consideration in the routing process.

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Areas Of Biological Wealth or Wildlife Habitat

25. Although no rare or endangered animal or bird species have been observed within the preferred corridor, a number of habitats, such as marshes, ponds, and wooded areas, have been identified which can be avoided in the routing of the proposed transmission facility. There are no special use wildlife areas, such as waterfowl production areas and game management areas, located within the preferred corridor.

Other State Agencies

26. Concerns expressed by the North Dakota Game and Fish Department apply equally to both corridors. Impacts associated with these concerns, such as waterfowl mortality, caused by collisions with structures and conductors, and the placement of structures in woodlands and wooded areas, can be minimized in the routing of the proposed transmission facility.

27. The preferred corridor is acceptable from the point of view of the North Dakota State Highway Department.

SITING CRITERIA

Exclusion and Avoidance Areas

28. Exclusion and avoidance areas within the preferred corridor have been identified in the application. There is no point along the preferred corridor at which the total combined width of exclusion or avoidance areas exceeds fifty per cent of the corridor width.

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Selection Criteria

Agriculture

29. The impacts upon agriculture are discussed elsewhere in these findings.

Noise Sensitive Land Uses

30. Apart from farm homes, rural residences, and small communities which are located within the preferred corridor, no evidence was presented of the existence of noise sensitive land uses within the preferred corridor. The proposed transmission facility can be routed to avoid close proximity to these areas.

Visual Effects

31. The visual impact of the proposed transmission facility is discussed elsewhere in these findings.

Extractive Resources

32. Figure E-7 of the application depicts coal deposits within and in the vicinity of the preferred and the alternative corridors. This information was obtained from the U. S. Department of the Interior, Bureau of Mines. Additional and more extensive information was presented in evidence by North American Coal Corporation and Consolidation Coal Company. This additional information was concerned with coal reserve areas within the corridors which have been leased by either North American Coal Corporation or Consolidation Coal Company.

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33. The exhibits and testimony received from North American Coal Corporation and Consolidation Coal Company indicate that the proposed transmission facility will have an impact upon the coal resources within the preferred corridor but that this impact can be mitigated during the routing of the facility.

Wetlands, Woodlands, and Wooded Areas

34. Efforts will be made during the routing process to avoid wetlands, woodlands, and wooded areas whenever possible. If it is necessary to cross a woodland or a wooded area, the need for clearing will be kept to a minimum.

Radio and Television Reception, and Other Communications or Electronic Control Facilities

35. The installation of this system will not have any adverse effects upon, or cause any interference to, communications, air navigation facilities, or military installations.

36. The proposed transmission facility will cause interference with radio and television reception in the immediate vicinity of the facility; however, this impact can be eliminated by routing the facility to avoid such close proximity.

37. This system will incorporate circuit breaker protection, so that in case a line were to go down or come into contact with another line it would be de-energized until repairs could be made.

38. Warning signs drawing attention to the presence of high voltages will be placed to protect the public and the substations

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themselves will be enclosed with chainlink fence to prevent animals or unauthorized personnel from coming close.

39. This system will be designed and constructed in accordance with the National Electrical Safety Code, 7th edition, which has been adopted by the Commission.

Animal Health and Safety and Plant Life

40. Impacts upon plant life are discussed elsewhere in these findings.

41. There will be no significant impact upon the health and safety of animals, although there may be some waterfowl mortality associated with collisions with the structures and lines. This impact can be mitigated by avoiding wetlands as much as possible.

CONCLUSIONS OF LAW

1. Chapter 49-22, NDCC, the Siting Act, grants the Commission the authority to designate a corridor within which a utility may propose to construct a transmission facility within North Dakota and to issue a certificate of site compatibility for a transmission facility to be routed within such a corridor.

2. The proposed facility, consisting of a double circuit 345 kV ac electric transmission line, two single circuit 345 kV ac electric transmission lines, the Coyote Substation, and the Center Substation, is a "transmission facility" within the meaning of the Siting Act.

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3. Study and evaluation of the application have been completed and a public hearing has been held thereon, so that the Commission has the power, pursuant to §49-22-10, NDCC, to designate a corridor for the proposed transmission facility.

4. The designated corridor does not violate the exclusion and avoidance criteria set out in the Siting Rules.

5. Construction of the proposed transmission facility within the designated corridor will not result in any significant adverse environmental impacts in relation to the selection criteria set out in the Siting Rules because any such impacts will either be at an acceptable minimum or will be managed and maintained at an acceptable minimum. Impacts on the extraction of the coal resources within the designated corridor will be mitigated during the route selection and evaluation process.

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ORDER

Upon the foregoing Findings of Fact and Conclusions of Law,
IT IS HEREBY ORDERED:

1. That a transmission facility corridor be designated as shown on the map attached to and hereby made a part of this Order.
2. That a Certificate of Site Compatibility for the construction of the proposed transmission facility within the designated corridor be and is hereby issued to Montana-Dakota Utilities Co. for itself and as agent for Minnkota Power Cooperative, Inc., Otter Tail Power Company, Northwestern Public Service Company, and Minnesota Power and Light Co.
3. That the original map upon which the designated corridor is delineated shall be kept with the Commission. A map showing the general location of the designated corridor shall be attached to all copies of this Order.

Dated at Bismarck, North Dakota, this 14th day of August, 1978.

Richard A. Elkin
Richard A. Elkin, President

Bruce Hagen
Bruce Hagen, Commissioner

Ben J. Wolf
Ben J. Wolf, Commissioner

(SEAL)

James Sauter
Secretary

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Certificate of Site Compatibility for Transmission Facility Corridor

Certificate No. 18

THIS IS TO CERTIFY That the Commission has designated a transmission facility corridor for Montana-Dakota
Utilities Company, which is described as follows:

Two 345 kv electric transmission lines from the Coyote Station in Mercer County, North Dakota, to a new substation near Center in Oliver County, North Dakota.

The facility may be routed in this designated corridor in compliance with the transmission facility routing criteria. This certificate is issued subject to all standard certificate conditions as listed in R49 22 7C(10) of the Commission's Rules and Regulations governing Energy Conversion and Transmission Facility Siting. This certificate is issued in accordance with the order of the Commission dated August 14, 1978, in Case No. 9698 and is subject to the conditions and limitations noted thereon.

Dated at Bismarck, North Dakota, this 15th
day of August, 19 78.

ATTEST:

Janet Sautter
Secretary.

PUBLIC SERVICE COMMISSION:

By Pen Jancy
Commissioner.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF NORTH DAKOTA

In the Matter of the Application of)	
Otter Tail Power Company, Minnkota)	
Power Cooperative, Inc., Montana-)	Case No. 9891
Dakota Utilities Co., Northwestern)	
Public Service Company and Minnesota)	
Power and Light Company for a Route)	FINDINGS OF FACT,
Permit for a Transmission Facility)	CONCLUSIONS OF LAW,
for the Coyote-Center 345-KV Trans-)	AND ORDER
mission System, Pursuant to N.D.C.C.,)	
Chapter 49-22.)	

On January 13, 1978, Montana-Dakota Utilities Co., acting as agent for the applicants, submitted an application on behalf of itself and Minnkota Power Cooperative, Inc., Otter Tail Power Company, Northwestern Public Service Company, and Minnesota Power and Light Co. wherein a certificate of site compatibility for a transmission facility corridor was sought for an electric transmission facility within North Dakota. On August 15, 1978, after public hearing, the Commission issued a Certificate of Site Compatibility for a Transmission Facility Corridor (Certificate No. 18).

On February 22, 1979, the Commission determined that the application for a route permit filed herein by MDU, acting as agent for the applicants, was complete. A hearing was scheduled for April 17, 1979, at 9:00 A.M. (MST) in Center, North Dakota. The hearing was held pursuant to notice by the Commission dated February 27, 1979, before Ray H. Walton, Commerce Counsel, Public Service Commission, as hearing examiner, and the following appearances were entered:

Exhibit C

Case No. 9891

Dr. Edward Englerth, Oliver Degerness and Bob Wetsch, Public Service Commission, and Thomas B. Tudor, Box 2335, Bismarck, appearing for the Public Service Commission; William P. Pearce, 314 East Thayer Avenue, Bismarck, and Joseph R. Maichel, 400 North 4th Street, Bismarck, appearing for Montana-Dakota Utilities Co.; Joseph A. Vogel, Jr. and Lawrence Dopson, Box 309, Mandan, appearing for a number of landowners; Cody Huseby, Land Use Administrator for Oliver County, appearing for the County.

PRELIMINARY STATEMENT

The application under consideration in this proceeding was filed by Montana-Dakota Utilities Co. acting on its own behalf and on behalf of the four other applicants. The applicants propose to own jointly an electric transmission facility which they propose to construct to allow utilization of the power to be generated by the Coyote Station generating facility certificated by the Commission in Case No. 9329. This application requests that the Commission issue a Route Permit designating a route within the designated corridor for this 345 kV ac electric transmission facility.

OTTER TAIL POWER COMPANY (OTP) is a privately-owned Minnesota-based electric utility providing retail electric service to approximately 114,000 customers in North Dakota, South Dakota, and Minnesota, 51,000 of which are in North Dakota. Its share of the proposed facility is 35%.

MINNKOTA POWER COOPERATIVE, INC. (MPC) is a member-owned North Dakota-based electric utility providing electrical generating and transmitting service to Rural Electric Cooperative distribution members located in Minnesota and North Dakota, four of which are

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in North Dakota. Its share of the proposed facility is 30%.

MONTANA-DAKOTA UTILITIES CO. (MDU) is a privately-owned North Dakota-based combination gas and electric utility providing retail electric service to approximately 91,000 customers in North Dakota, South Dakota, Montana, and Wyoming, 52,000 of whom are in North Dakota. Its share of the proposed facility is 20%.

NORTHWESTERN PUBLIC SERVICE COMPANY (NWPS) is a privately-owned South Dakota combination gas and electric utility providing retail electric service to approximately 42,000 customers in South Dakota. It provides no electric utility service in North Dakota. Its share of the proposed facility is 10%.

MINNESOTA POWER & LIGHT CO. (MP&L) is a privately-owned Minnesota-based electric utility providing retail electric service in the State of Minnesota. It provides no electric utility service in the State of North Dakota. Its share of the proposed facility is 5%.

In addition to its role as agent for the applicants, MDU has assumed the responsibility for the construction of the proposed transmission facility.

Upon consideration of all evidence of record, the Commission now makes the following:

FINDINGS OF FACT

1. The applicants propose to construct and to operate a transmission facility consisting of a single circuit 345 kV ac electric transmission line from a substation to be located approximately three miles southwest of Beulah, from which connection to the Coyote Station will be made, to a proposed substation

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to be located about one-half mile northeast of the Milton R. Young Plant southeast of Center. The purpose of the proposed transmission facility is to transmit power generated at the Coyote Station to the presently existing transmission systems of the applicants. No existing transmission facilities are available for this purpose.

2. The facility for which the Commission designated a corridor herein was a double-line system. The plans were subsequently modified by the applicants, however, and the facility in question herein is now a single line. The corridor continues to be appropriate for the system as now proposed.

3. The line will be constructed on wood pole H-frame structures on a 130-foot wide right-of-way. The tangent structures will have a nominal height of 80 feet above ground, with a 27-foot spacing between the two poles in a structure and an average span length between structures of 750 feet. The minimum ground clearance of the conductors will be 28 feet at 120° F., and greater at lower temperatures. Deadend and angle structures will be multi-pole structures, consisting of from three to six poles of about the same size as in the tangent structures, and will be guyed and anchored as necessary.

4. The Coyote and Center Substations will be located on 20-acre and 7-acre sites near the Coyote plant and the Milton R. Young plant, respectively. The primary control center for the Coyote substation will be located at the MDU load dispatch office

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in Bismarck, with direct control of the station equipment from the relay house at the substation and standby control in the power plant control room. The primary control center for the Center Substation will be located at the Minnkota Power Cooperative dispatch office in Grand Forks, with direct control of the substation equipment from the relay house at the substation and standby control in the power plant control room. The substations will be enclosed by fences with locked gates and signs warning of the presence of high voltages will be posted.

5. The estimated cost of the proposed facilities, including the substations, is \$15,550,000.

6. The design and construction of the proposed facilities will meet or exceed the standards imposed by the National Electric Safety Code.

7. Present technology does not permit a transmission line of this type and length to be installed underground.

8. The proposed route, which lies wholly within the corridor heretofore approved, crosses approximately 19.7 miles of rangeland or pastureland and 13.8 miles of cropland. The first 4.2 miles of the proposed route, starting at the proposed site for the Coyote Substation, cross predominately pastureland and reclaimed mined land and were located to minimize impacts on existing and planned coal mining operations. The next 5.1 miles, angling southeasterly, cross primarily pastureland, avoiding an undesirable crossing of Otter Creek and farmsteads and known coal reserves to the east. The next 9.2 miles include 6 miles of cultivated land; an alternative location to the south would have been

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longer and would have crossed more cultivated land, while an alternative location to the north would have crossed identified coal deposits. The next 3.5 miles of the proposed route parallel section lines to the east and then the route turns northeasterly for 1.9 miles. These sections were located to avoid farmsteads and the City of Hannover, to minimize the amount of cultivated land crossed, and to approach Highway 25 east of Hannover. This highway is then paralleled by the next 4.6 miles of the route to avoid further identified coal deposits. The final 6 miles of the route were located so as to avoid the City of Center and nearby residences and a sewage lagoon, and to avoid insofar as possible areas which are planned to be mined for coal in the near future. This brings the route to the site proposed for the Center Substation east of Nelson Lake.

9. Angle structures, with their associated guys and anchors, will be located on uncultivated land, with the exception of one near Center which will be located near the edge of a cultivated field to accommodate the wishes of the affected landowner.

Exclusion And Avoidance Areas.

10. The proposed route does not cross or pass immediately adjacent to any exclusion areas under the Siting Act rules and regulations. Adequate buffer zones exist between the proposed route and any exclusion areas in the designated corridor.

11. The proposed route crosses an avoidance area in the Southwest Quarter of Section 15, Township 142 North, Range 84 West, in Oliver County, where it passes an occupied residence by less than 500 feet, but more than 300 feet. The route is so located at this point in order to avoid impacting coal areas.

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12. The proposed route crosses two avoidance areas consisting of small hardwood draws along Square Butte Creek in the North Half of the Southwest Quarter of Section 24, Township 142 North, Range 84 West, in Oliver County. The alternatives to crossing these hardwood draws are routing to the south, which would cross an area of coal resources, and routing to the north which would encroach upon the Square Butte drainage area.

13. An archaeological field survey of the proposed route revealed the presence of five areas of archaeological and historic significance, which are avoidance areas, along the proposed route. Two of these areas are tipi ring sites, one located in Sections 23 and 24 (Township 142 North, Range 86 West) west of Hannover, and the other located in Section 23 (Township 142 North, Range 84 West) southeast of Center. In accordance with the recommendations of the archaeologist in charge of the survey the transmission line route will be moved several meters from the proposed route at these sites to avoid crossing the rings. One of the areas is a petroform in Section 16, Township 143 North, Range 87 West, the northeast end of which is intersected by the proposed route. The actual route will be moved at this point to avoid crossing the petroform. The other two areas are lithic scatter sites, in Section 5 and Section 16, Township 143 North, Range 87 West. Any impact on these two sites during construction will be minimized by having an archaeologist present during excavation to observe for the presence of any archaeologically valuable materials. For this reason it is not necessary to relocate the proposed route at these two points.

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Selection Criteria.

14. Each pole structure will remove from production about 1/27 acre of cropland, resulting in the removal along the entire route of about 3-1/2 acres of cropland from agricultural production. Steel or aluminum towers would take more cropland out of production. Crop loss that might be caused during construction on the right-of-way would occur only during the construction period and normal farming operations can be carried out on the right-of-way after construction of the line. The proposed route avoids the areas in the corridor which have the highest SCS capability classifications.

15. No additional adverse impacts will occur to family farms and ranches as such.

16. No lands along the proposed route were demonstrated by the owner to be economically suitable for irrigation, based on soil, topography, drainage, and an available water supply, that will suffer any significant adverse effect from the construction and operation of the transmission line along the proposed route.

17. The transmission line will span all water crossings along the proposed route and the pole structures will be located at an adequate distance from stream beds. The structures will not penetrate any major aquifers. No permanent increase in stream sedimentation will take place. Construction and operation of the system will not disturb groundwater supply, flow, or quality or cause any disruption of surface drainage patterns.

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18. Noise impacts created during construction will be temporary and noise impacts generally will be minimized by the fact that the proposed route passes through sparsely populated areas. No noise sensitive land uses occur along the proposed route that require any special precautions. Expert testimony offered by MDU demonstrated that audible noise produced by corona on the line during operation would be far below generally recognized standards and would cause no significant impact.

19. Visual impacts on the adjacent area will be minimal because the proposed route passes through areas of low population and the wooden pole structures will blend in with the surrounding landscape. Visual impacts during construction will be temporary and limited since no extensive grading or excavation is required.

20. The proposed route, as stated herein, has been located so as to avoid identified coal resources as far as possible. There are no identified petroleum resources which are impacted by the proposed route, nor any other extractive or storage resources.

21. No adverse impacts will be caused by the proposed route to any wetlands areas. Apart from the crossing of two wooded draws, described herein, woodlands and wooded areas are impacted at only one point, a crossing of a sparse cottonwood stand in the Northwest Quarter of the Southeast Quarter of Section 24, Township 142 North, Range 84 West, southeast of Center. The routing in the vicinity of Center is described herein, and no significant impact will be created by this crossing.

22. Expert testimony demonstrated that only minimal interference will be caused to broadcast band radio reception and then only during periods of heavy rain or snow. No interference will

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be caused to fire, police, aeronautical, or commercial radio services. Interference to amateur radio and citizens band radio services will be minimal and again would occur only during heavy rain or snow conditions. Television interference will not be a problem except under the most adverse circumstances such as the location of an antenna on the edge of the right-of-way and pointing through the line toward the broadcasting station. No instances were identified along the route where these conditions will exist.

23. Expert testimony also showed that the proposed line will not produce and release into the atmosphere any significant amounts of ozone or oxidants. Studies have shown that electrostatic and electromagnetic effects generated by the operation of the line will not create any hazards to human or animal health and safety or create any adverse impacts on plant life. Fences crossed by the line or paralleling the line on the right-of-way will be grounded to prevent any electric shock effects.

24. No significant long-term impacts will be created upon wildlife habitats and animal populations along the proposed route.

25. No evidence of the presence of threatened or endangered plant species was found in field investigation of the proposed route. Vegetative cover disturbed during construction will be restored and the only continuing impact on vegetation will occur from the trimming of trees and brush on the right-of-way that might interfere with the conductors or pole structures.

26. The approval of the proposed route will not entail any irreversible or irretrievable commitments of natural resources.

27. No alternatives to the proposed route were developed during the hearing process which would lessen any adverse effects, apart from the minor deviations described herein at the archaeological sites, which will be incorporated into the designated route.

28. No plans of the state, local government, or other private entities for other developments in the vicinity of the proposed route were shown to exist. The proposed transmission line will tie into existing transmission facilities in the vicinity of the Center Substation and will connect with the Coyote Station at the Coyote Substation.

29. No significant social or economic burdens will occur in the area due to the proposed facilities. A total temporary increase in population of about 53 persons for the four-month line construction period is anticipated, and about 28 persons for the one-year substation construction period, which should not unduly burden local housing, school or service facilities. Operation and maintenance will be provided by MDU personnel already living in the area, so that no permanent impacts will occur. Local annual property tax revenues of about \$103,000 per year are anticipated for the two counties together from the presence of the facilities. The total construction payroll is anticipated to be about \$475,000, some of which will be spent locally for goods and services.

CONCLUSIONS OF LAW

1. The proposed system constitutes a "transmission facility" within the meaning of Chapter 49-22, N.D.C.C.

2. Section 49-22-08.1, N.D.C.C., provides that the Commission shall designate a route within the approved corridor after hearings and study and issue a route permit.

3. Study and evaluation of the route application have been completed and a public hearing has been held thereon, so that the Commission is empowered to designate a route.

4. The proposed route does not violate the exclusion and avoidance area criteria contained in Sections 69-06-08-02(1) and 69-06-08-02(2) of the Siting rules; although the proposed route does cross areas designated as avoidance areas as discussed herein in the Findings of Fact, there are no reasonable alternatives to the crossing of these areas.

5. There will be no significant adverse human and environmental impacts in relation to the selection criteria contained in Section 69-08-02(3) of the Siting Rules because any such impacts will either be at an acceptable minimum or can be managed and maintained at an acceptable minimum.

6. The applicants have complied or are complying with the rules and regulations of all other agencies having jurisdiction over any phase of the construction of the proposed facility, and have obtained or are in the process of obtaining all other required permits and approvals.

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7. The applicants are entitled to receive a permit designating a route to construct, operate, and maintain a 345-kV ac transmission facility from a point approximately three miles southwest of Beulah to a point approximately one-half mile northeast of the Milton R. Young Plant southeast of Center.

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ORDER

Upon the foregoing Findings of Fact and Conclusions of Law,
IT IS HEREBY ORDERED:

1. That a transmission facility route be designed as shown on the map attached to and hereby made a part of this Order.

2. That a Route Permit for the construction of the proposed transmission facility within the designated corridor be and is hereby issued to Montana-Dakota Utilities Co. for itself and as agent for Minnkota Power Cooperative, Inc., Otter Tail Power Company, Northwestern Public Service Company, and Minnesota Power and Light Co.

3. That the original map upon which the designated route is delineated shall be kept with the Commission. A map showing the location of the designated route shall be attached to all copies of this Order.

4. That MDU shall construct this transmission facility in the manner described in the application as modified and expanded by the environmental protection commitments set forth in the record of this case and this Order.

5. That if any cultural resource site is discovered prior to or during construction it shall be marked, preserved, and protected from further disturbance until a professional examination can be made by the State Historical Society or a qualified archaeologist or geologist who has been approved by the State Historical Society, a report of such examination is filed with the Commission, and clearance to proceed is given by the Commission.

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6. That all areas used as temporary roads during construction shall be reclaimed, and all pre-existing roads and lanes used during construction shall be restored to a condition that will accommodate their previous use.

7. That all rangelands, grasslands, grass waterways, and stream and river banks damaged during construction or maintenance shall be reclaimed and revegetated as recommended by the local SCS office.

8. That stabilization procedures recommended by the local SCS office shall be undertaken no later than two weeks after construction has been completed in all disturbed areas that are prone to significant wind or water erosion.

9. That all ground surface areas temporarily disturbed by construction shall be graded upon completion to provide uniform surfacing and shall be returned to the contours, elevation, and natural drainage patterns existing prior to construction.

10. That cropland areas temporarily disturbed by construction shall be returned as near as possible to the compaction which existed prior to construction.

11. That all reclamation shall be performed as a sequence of construction by a reclamation crew coordinated with all construction activities.

12. That cleanup along the right-of-way shall be continuous during construction.

13. That MDU shall prepare an approved safety booklet prior to operating this transmission facility which shall be delivered

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to all resident landowners and tenants along the designated route and shall be made available to members of the general public upon request.

14. That MDU shall maintain records to demonstrate compliance with the requirements of this Order and shall preserve these records for Commission inspection until released from that responsibility by the Commission.

15. That the authorization granted by the permit is subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

16. That the Commission may require or allow deviations from the requirements of this Order in appropriate circumstances.

Dated at Bismarck, this 27th day of August, 1979.

BY THE COMMISSION:

Richard A. Elkin
Richard A. Elkin, President

Bruce Hagen
Bruce Hagen, Commissioner

Ben J. Wolf
Ben J. Wolf, Commissioner

(SEAL)

Paul Sauter
Secretary

PUBLIC SERVICE COMMISSION

STATE OF NORTH DAKOTA

Permit for the Construction of a Transmission Facility

Permit No. 26

THIS IS TO CERTIFY That the Commission has designated a transmission facility route for Montana-Dakota Utilities Co., which is described as follows:

One 345KV Transmission Facility extending from the Coyote Station in Mercer County, North Dakota, to a new substation approximately one-half mile northeast of the Milton R. Young Station in Oliver County, North Dakota.

The facility may be routed in compliance with the transmission facility routing criteria. This permit is issued subject to all standard permit conditions as listed in R49-22 8C(5) of the Commission's Rules and Regulations governing Energy Conversion and Transmission Facility Siting. This permit is issued in accordance with the order of the Commission dated August 27, 1979, in Case No. 9891 and is subject to the conditions and limitations noted thereon.

Dated at Bismarck, North Dakota, this 27.th day of August, 1979

ATTEST:

Janel Sautter
Secretary.

PUBLIC SERVICE COMMISSION:

By Richard E. Elkin
Commissioner.