

APR 30 2018



Public Service Commission

State of North Dakota

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30 April 2018

Vonette Richter
Code Revisor
North Dakota Legislative Council
State Capitol
Bismarck, ND 58505-0360

Via hand delivery only

RE: Siting, PSC Case No. PU-17-339
Pipeline Safety, PSC Case No. GS-17-370
Wind Decommissioning, PSC Case No. PU-17-371

Dear Ms. Richter:

Enclosed for publication in the North Dakota Administrative Code, please find a copy of amendments to North Dakota Administrative Code Section 69-06-08-01, Energy Conversion Facility Siting Criteria, Chapter 69-06-11, Wind Energy Conversion Facility Lighting Systems, Section 69-09-03-02, Adoption of Regulations, and Section 69-09-09-10, Wind Energy Conversion Facility - Waiver. In support of this filing, enclosed please find copies of:

- The Public Service Commission's 30 April 2018 Motion to adopt Rules and file, with final rules attached.
- Letter from the Attorney General dated 25 April 2018 approving the proposed rules as to legality;
- The Public Service Commission's 29 March 2018 Order Submitting Rules to Attorney General, which includes a summary of all comments, written and oral, and is the written record of the agency's consideration of all comments;
- A fiscal note; and
- Copies of written comments.

Thank you for your attention to this matter. If you have any questions, please call 328-2421, or e-mail to jschuh@nd.gov.

Best regards,

A handwritten signature in blue ink, appearing to read "John Schuh".

John Schuh
Legal Counsel

attachments

- 21 PU-17-371 Filed 04/30/2018 Pages: 50
Letter to Legislative Council enclosing proposed rules for publication
- 22 GS-17-370 Filed 04/30/2018 Pages: 50
Letter to Legislative Council enclosing proposed rules for publication
- 26 PU-17-339 Filed 04/30/2018 Pages: 50
Letter to Legislative Council enclosing proposed rules for publication

APPROVED

DATE: 4/30/18
AH

MOTION

April 30, 2018

**Public Service Commission
Siting
Rulemaking**

Case No. PU-17-339

**Public Service Commission
Pipeline Safety
Rulemaking**

Case No. GS-17-370

**Public Service Commission
Wind Decommissioning
Rulemaking**

Case No. PU-17-371

Having been approved by the Attorney General, I move the Commission adopt the proposed new Chapter 69-06-11, new Section 69-09-03-02, and amendments to Sections 69-06-08-01 and 69-09-09-10, and forward the proposed changes to the North Dakota Administrative Code to the Legislative Council for publication in Public Service Commission, Siting, Rulemaking, Case No. PU-17-339, Public Service Commission, Pipeline Safety, Rulemaking, Case No. GS-17-370, and Public Service Commission, Wind Decommissioning, Rulemaking, Case No. PU-17-371.

- 20 PU-17-371 Filed 04/30/2018 Pages: 1
Commission Motion to adopt proposed rules and forward to the Leg. Council
Public Service Commission
- 20 GS-17-370 Filed 04/30/2018 Pages: 1
Commission Motion to adopt proposed rules and forward to the Leg. Council
Public Service Commission
- 24 PU-17-339 Filed 04/30/2018 Pages: 1
Commission Motion to adopt proposed rules and forward to the Leg. Council
Public Service Commission

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Siting
Rulemaking

Case No. PU-17-339

March 29, 2018

ARTICLE 69-06
ENERGY CONVERSION AND TRANSMISSION FACILITY SITING

Chapter	
69-06-01	General Provisions
69-06-02	Utility Reporting Requirements
69-06-02.1	Requests for Jurisdictional Determination
69-06-03	Letter of Intent [Repealed]
69-06-04	Certificate of Site Compatibility
69-06-05	Transmission Facility Permit
69-06-06	Waiver of Procedures and Time Schedules
69-06-07	Emergency Certificate or Permit [Repealed]
69-06-08	Criteria
69-06-09	Continuing Suitability of Certificate or Permit
69-06-10	Small Wind Energy Conversion Facilities
<u>69-06-11</u>	<u>Wind Energy Conversion Facility Lighting Systems</u>

69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.
 - a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
 - b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.
 - c. County parks and recreational areas; municipal parks; parks owned or

administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.

- d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that if the commission finds that the prime farmland and unique farmland that will be removed from use for the life of the facility is of such small acreage as to be of negligible impact on agricultural productions, this exclusion does not apply.
 - e. Irrigated land.
 - f. Areas critical to the life stages of threatened or endangered animal or plant species.
 - g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.
 - h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.
2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:
- a. Areas ~~less than~~ within:
 - (1) One and one-tenth times the height of the turbine from interstate or state roadway right of way;
 - (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;
 - (3) One and one-tenth times the height of the turbine from any railroad right of way;
 - (4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and
 - (5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and three times the height of the turbine from an inhabited rural residence of a

nonparticipating landowner, unless a variance is granted. A variance may be granted if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in North Dakota Century Code chapter 17-04.

3. **Avoidance areas.** The following geographical areas may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.
 - a. Historical resources which are not designated as exclusion areas.
 - b. Areas within the city limits of a city or the boundaries of a military installation.
 - c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.
 - d. Areas that are geologically unstable.
 - e. Woodlands and wetlands.
 - f. Areas of recreational significance which are not designated as exclusion areas.
4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.
5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or

that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:

- a. The impact upon agriculture:
 - (1) Agricultural production.
 - (2) Family farms and ranches.
 - (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.
 - (4) Surface drainage patterns and ground water flow patterns.
 - (5) The agricultural quality of the cropland.
- b. The impact upon the availability and adequacy of:
 - (1) Law enforcement.
 - (2) School systems and education programs.
 - (3) Governmental services and facilities.
 - (4) General and mental health care facilities.
 - (5) Recreational programs and facilities.
 - (6) Transportation facilities and networks.
 - (7) Retail service facilities.
 - (8) Utility services.
- c. The impact upon:
 - (1) Local institutions.
 - (2) Noise-sensitive land uses.
 - (3) Light-sensitive land uses.
 - (4) Rural residences and businesses.
 - (5) Aquifers.

- (6) Human health and safety.
 - (7) Animal health and safety.
 - (8) Plant life.
 - (9) Temporary and permanent housing.
 - (10) Temporary and permanent skilled and unskilled labor.
- d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.
6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:
- a. Recycling of the conversion byproducts and effluents.
 - b. Energy conservation through location, process, and design.
 - c. Training and utilization of available labor in this state for the general and specialized skills required.
 - d. Use of a primary energy source or raw material located within the state.
 - e. Not relocating residents.
 - f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.
 - g. Economies of construction and operation.
 - h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.
 - i. Use of citizen coordinating committees.
 - j. A commitment of a portion of the energy produced for use in this state.
 - k. Labor relations.
 - l. The coordination of facilities.

- m. Monitoring of impacts.
- n. A commitment to install lighting mitigation technology for wind energy conversion facilities subject to commercial availability and federal aviation administration approval.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; July 1, 2017; _____.

General Authority: NDCC 28-32-02, NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1, NDCC 49-22.1-03

CHAPTER 69-06-11

Wind Energy Conversion Facility Lighting Systems

Section

69-06-11-01 Definitions

69-06-11-02 Implementation

69-06-11-03 Service, Maintenance, Safety, and Lighting System Standards

69-06-11-01. Definitions.

In this chapter:

1. "Aircraft Detection Lighting System" means a sensor-based system designed to detect aircraft as they approach a wind energy conversion facility; this system automatically activates obstruction lights until they are no longer needed.
2. "Commission" means the public service commission.
3. "Light Intensity Dimming Solution Technology" means obstruction lighting that provides a means of tailoring the intensity level of lights according to surrounding visibility.
4. "Light-Mitigating Technology System" means aircraft detection lighting system, lighting intensity dimming solution technology, or a comparable solution capable of reducing the impact of nighttime lighting while maintaining night conspicuity sufficient to assist aircraft in identifying and avoiding collision with the facilities.
5. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.
6. "Wind Energy Conversion Facility" means any plant, addition, or combination of plant and addition, designed for or capable of generation

by wind energy conversion exceeding one-half megawatt of electricity.

69-06-11-02. Implementation.

1. A wind energy conversion facility for which a certificate of site compatibility was issued after June 5, 2016 must be equipped with a functioning light-mitigating technology in compliance with this chapter by December 31, 2019.
2. A wind energy conversion facility for which a certificate of site compatibility was issued before June 5, 2016 must be equipped with a functioning light-mitigation technology in compliance with this chapter by December 31, 2021. The Commission may grant an extension of time based on technical or economic feasibility considerations.
3. The commission may grant a waiver of this chapter for a wind energy conversion facility designed for or capable of generating no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.
4. To allow proper conspicuity of a turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration including the light mitigation technology is implemented.
5. Owner shall provide written notice to the commission upon implementation of light-mitigating technology in compliance with this chapter.
6. Owner is solely responsible for any costs associated with the implementation, operation, and maintenance of each light-mitigating technology system.
7. An extension request must be in writing and contain:
 - a. The purpose of the extension;
 - b. A description of the light-mitigating technologies submitted to the Federal Aviation Administration;
 - c. The technical or economic inability to implement light-mitigation technology systems;
 - d. The length of extension requested; and
 - e. Any other information requested by the commission.

69-06-11-03. Service, Maintenance, Safety, and Lighting System Standards.

Each light-mitigating technology system must be installed, operated, and maintained in accordance with United States Department of Transportation Federal

Aviation Administration regulations [14 CFR 1.1. et. seq] in effect as of [date of publishing rules].

History: Amended Effective 2017.

General Authority: NDCC 28-32-02, NDCC 49-22-18

Law Implemented: NDCC 49-22-16.4

State of North Dakota
Public Service Commission

Public Service Commission
Pipeline Safety
Rulemaking

Case No. GS-17-370

69-09-03-02. Adoption of regulations. The following parts of title 49, Code of Federal Regulations in effect as of ~~December 31, 2015~~December 31, 2017, are adopted by reference:

1. Part 190 - Pipeline Safety Programs and Rulemaking
Procedures.
2. Part 191 - Transportation of Natural Gas and Other Gas by
Pipeline, Annual Reports, Incident Reports, and Safety-Related
Condition Reports.
3. Part 192 - Transportation of Natural and Other Gas by Pipeline: Minimum
Federal Safety Standards.
4. Part 193 – Liquefied Natural Gas Facilities: Federal Safety Standards
- 4.5. Part 194 – Response Plans for Onshore Oil Pipelines
- 5.6. Part 195 - Transportation of Hazardous Liquids by Pipeline.
- 6.7. Part 199 - Drug and Alcohol Testing.

Copies of these regulations may be obtained from:

Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480

History: Effective June 1, 1984; amended effective July 1, 1986; January 1, 1988; March 1, 1990; February 1, 1992; August 1, 1993; August 1, 1994; February 1, 1996; July 1, 1997; July 1, 1998; September 1, 1999; August 1, 2000; January 1, 2002; November 1, 2003; May 1, 2005; July 1, 2006; April 1, 2008; January 1, 2010; April 1, 2012; April 1, 2015; October 1, 2016, _____.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 49-02-01.2

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Public Service Commission
Wind Decommissioning
Rulemaking

Case No. PU-17-371

CHAPTER 69-09-09
WIND FACILITY DECOMMISSIONING

Section

<u>69-09-01</u>	Definitions
<u>69-09-02</u>	Decommissioning Responsibility
<u>69-09-03</u>	Abandonment and Useful Life - Certificate of Operation
69-09-04	Decommissioning Period
<u>69-09-05</u>	Decommissioning Requirements
<u>69-09-06</u>	Decommissioning Plan
<u>69-09-07</u>	Existing Facilities
<u>69-09-08</u>	Financial Assurance
<u>69-09-09</u>	Failure to Decommission

69-09-09-10. Wind Energy Conversion Facility – Waiver

The commission may grant a waiver of any requirement described in sections 69-09-09-03, 69-09-09-06, or 69-09-09-08 for a commercial wind energy conversion facility with a nameplate generating capacity of no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.

History: Effective

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27



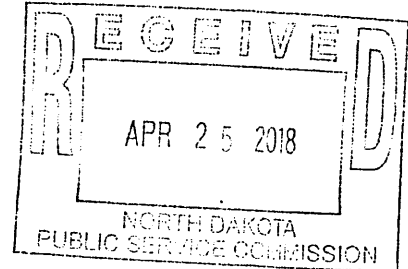
Wayne Stenehjem
ATTORNEY GENERAL

STATE OF NORTH DAKOTA
OFFICE OF ATTORNEY GENERAL

STATE CAPITOL
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OPINION

April 25, 2018



Ms. Illona Jeffcoat-Sacco
Public Service Commission
600 E Boulevard Ave Dept 408
Bismarck, ND 58505-0480

Dear Ms. Jeffcoat-Sacco:

The Office of Attorney General has examined the proposed amendments to N.D.A.C. title 69 concerning energy conversion facility siting and wind energy conversion facility lighting (Case No. PU-17-339), pipeline safety (Case No. GS-17-370) and wind energy conversion facility decommissioning (Case No. PU-17-371), along with the notice of the proposed rules, the publication of that notice, and the filing of that notice with the Legislative Council. This office has also determined that 1) a written record of the agency's consideration of any comments to the proposed rules was made, 2) a regulatory analysis was not issued or requested, 3) a takings assessment was not prepared because the rules do not constitute a taking of real property, 4) a small entity regulatory analysis and an economic impact statement were not prepared because the rules are not expected to affect small entities, and 5) the proposed rules are within the agency's statutory authority.

These administrative rules are in substantial compliance¹ with N.D.C.C. ch. 28-32 and are hereby approved as to their legality. Upon final adoption, these rules may be filed with the Legislative Council.

Sincerely,

Wayne Stenehjem
Attorney General

eee

cc: Vonette Richter, Legislative Council

¹ One weekly newspaper published notice of the hearing late, but still prior to the hearing date.

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

**Public Service Commission
Siting
Rulemaking**

Case No. PU-17-339

**Public Service Commission
Pipeline Safety
Rulemaking**

Case No. GS-17-370

**Public Service Commission
Wind Decommissioning
Rulemaking**

Case No. PU-17-371

ORDER SUBMITTING RULES TO ATTORNEY GENERAL

March 29, 2018

Appearances

Commissioners Randy Christmann, Brian Kroshus, and Julie Fedorchak

Preliminary Statement

On November 29, 2017, the North Dakota Public Service Commission (Commission) issued a formal Notice of Intent to Amend Administrative Rules and Notice of Public Hearing and Abbreviated Notice of Intent to Amend Administrative Rules and Notice of Public Hearing, proposing to amend section 69-06-08-01, propose new chapter 69-06-11, amend section 69-09-03-02, and proposing new section 69-09-09-10 of the North Dakota Administrative Code.

On November 29, 2017, Staff filed statements regarding the required regulatory analysis, small entity analysis, and takings assessments.

On December 4, 2017, the Commission forwarded the notices to the Legislative Council for publication at least 30 days in advance of the hearing.

On December 5, 2017, an email containing the proposed rules was submitted to each sponsor and cosponsor of implemented 2017 HB 1378 and related legislation 2017 SB 2313. Although the email and affidavit of service state that a full notice was provided, a copy of the full notice was inadvertently not enclosed.

The Abbreviated Notice was published once in each of the 52 official county newspapers in the state during the weeks of December 5 through December 11, 2017.

On January 3, 2018, the Commission held the public hearing as noticed, beginning at 9:00 a.m., CST, in the Commission Hearing Room, 12th floor, State Capitol, Bismarck, North Dakota.

The Commission allowed a comment period until January 18, 2018, during which the Commission received and considered data, views, or written or oral comments concerning the proposed rulemaking as part of the rulemaking record.

The proposed rules and amendments are summarized as follows:

Case No. PU-17-339 - Section 69-06-08-01- Energy Conversion Facility Siting Criteria

The Commission proposed to amend North Dakota Administrative Code section 69-06-08-01 to reflect changes to North Dakota Century Code section 49-22-05.1 enacted during the 2017 legislative session (SB 2313) regarding setbacks from the inhabited residence of a nonparticipating landowner.

Case No. PU-17-339 – New Chapter 69-06-11 - Wind Energy Conversion Facility Lighting Systems

The Commission proposed new Chapter 69-06-11 to implement 2017 House Bill 1378 enacted during the Sixty-fifth legislative session as North Dakota Century Code section 49-22-16.4, providing that the North Dakota Public Service Commission "shall adopt rules relating to the implementation of light-mitigating technology systems on wind energy conversion facilities."

Case No. GS-17-370 – Section 69-09-03-02 - Pipeline Safety

The Commission proposed to adopt, by reference, the most recent amendments to pipeline safety regulations adopted by the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA). The Commission also proposed to amend section 69-09-03-02 to include safety standards for liquefied natural gas (LNG) facilities.

Case No. PU-17-371 - Section 69-09-09-10 - Wind Decommissioning

The Commission proposed the addition of section 69-09-09-10 to provide that the Commission may grant a waiver of requirements under North Dakota Administrative Code section 69-09-09-03, section 69-09-09-06, and section 69-09-09-08 for a commercial

wind energy conversion facility with a nameplate generating capacity of no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.

Public Hearing and Comments

The Commission reviewed and considered all comments. The written and oral comments that were received are summarized and discussed below by case number.

Case No. PU-17-339 - Section 69-06-08-01- Energy Conversion Facility Siting Criteria and New Chapter 69-06-11 - Wind Energy Conversion Facility Lighting Systems

Written and oral comments by Jerry Lein of Commission Staff were provided at the hearing. Lyle Best, MD and Doug Darling, Ph.D., President of Lake Regional State College (Lake Region) provided written comments. During the hearing, Jean Schafer testified and provided comments on behalf of Basin Electric Power Cooperative (Basin).

69-06-08-01: Wind Energy Conversion Facility Siting Criteria

Commission Staff provided comments describing the proposal to amend the North Dakota Administrative Code section 69-06-08-01(2)(a)(5) to reflect the changes from the 2017 legislative session to North Dakota Century Code section 49-22-05.1 establishing a minimum wind turbine setback of three times the height of the turbine from an inhabited residence of a nonparticipating landowner.

The Commission received no further comments regarding this section and the Commission proposes to adopt this amendment without revisions.

69-06-11: Wind Energy Conversion Facility Lighting Systems

Commission Staff provided comments describing the new proposed chapter 69-06-11 to implement House Bill 1378 enacted during the 2017 legislative session as North Dakota Century Code section 49-22-16.4, providing that the Commission shall adopt rules relating to the implementation of light-mitigating technology systems on wind energy conversion facilities. The proposed new chapter provides that a wind energy conversion facility permitted after June 5, 2016 must be equipped with a functioning United States Department of Transportation, Federal Aviation Administration (FAA) approved light-mitigating technology by December 31, 2019. Facilities permitted before June 5, 2016 must be equipped by December 31, 2021. The rules provide that an extension may be granted based upon technical or economic feasibility considerations. The new chapter provides that the Commission may grant a waiver of the requirements for a wind energy conversion facility designed to produce up to five megawatts.

Lyle Best, MD. Mr. Best's written statement provided a number of comments outside the scope of the rulemaking regarding the reduction of flaring, reduction of energy consumption, and recommendations to the legislature before addressing the proposed rules. As a licensed private pilot, Mr. Best's comments on the proposed rules expressed concern with the reliability of a system that is "intermittent and dependent on (most likely) a radar detection system" and the risk of a more complex system having more modes of failure; the dangers of a hostile act or electronic interference preventing the wind turbine from lighting; concerns of litigation, liability and electronic records upon system failure; and whether the Commission will ensure parity between wind farms and other structures, such as radio towers.¹

The commission considered Mr. Best's comments and concerns. As proposed, the rules require each light mitigating technology to be installed, operated, and maintained in accordance with FAA regulations. The purpose of aeronautical studies for FAA approval is to ensure safe and efficient use of navigable airspace and air navigation equipment.² FAA regulations provide standards for inspection, repair and safety of lighting operations including daily monitoring and logging of system operations,³ partial permanent illumination of projects near obstructions to maintain safety,⁴ automatic turning on of lights in the event of system failure,⁵ and outage reporting.⁶ The legislature has not expressed intent for the Commission to determine liability as part of this rulemaking, and lighting for other structures such as radio towers is currently beyond the Commission's jurisdiction.

Basin Electric submitted comments for proposed North Dakota Administrative Code section 69-06-11-03. Basin commented that FAA approval is needed for modification or replacement of a wind farm's existing lighting system. The process may take a minimum of 90-120 days for approval. Basin commented that this process is complicated for a wind farm in close proximity to the Minot Air Force Base that surrounds a ballistic missile and helicopter pad and that changing the lighting system also requires approval from the United States Air Force. To allay their concerns, Basin requested a

¹ PU-17-339, Docket No. 16.

² 14 CFR § 77.1

³ See Advisory Circular No. 70/7460-1L, 4-4, Section 4.8. "Obstruction lighting systems should be closely monitored by visual or automatic means. It is extremely important to visually inspect obstruction lighting in all operating intensities at least once every 24 hours on systems without automatic monitoring. . . . For each structure, a log should be maintained in which the lighting system's daily operations status is recorded."

⁴ Id. at 14-2, Section 14.2.3. "It may be appropriate to keep certain obstructions closest to . . . activity areas illuminated during the nighttime hours, while the remainder of the group's obstruction lighting is controlled by ADLS."

⁵ Id. at 14-2. Section 14.2.5. "In the event of an ADLS component or system failure, the ADLS should automatically turn on all the obstruction lighting and operate . . . as if it was not controlled by ADLS. The obstruction lighting must remain in this state until the ADLS and its components are restored."

⁶ See generally Id. at 2.4. Reporting by FAA requirements is achieved by calling Outage Reporting and Notice to Airmen.

revision so that approval also be needed from "any other federal agency with regulatory authority."

The commission considered Basin's comments and proposed revision and believes that revising the proposed rule so that the systems simply must be installed, operated and maintained in accordance with 14 Code of Federal Regulations (CFR) 1.1. et. seq., but not specify the necessity of "approval prior to implementation" may provide a clearer alternative. By installing and operating in compliance with Title 14 CFR Part 77, Basin's concerns regarding proximity to the Minot Air Force Base and ballistic missile base should be addressed. Under 14 CFR § 77.5, any proposed construction or alteration must provide adequate notice for the FAA to determine appropriate marking and lighting recommendations.⁷ As part of aeronautics studies and approval, the FAA considers the impact and proximity to flight routes, military use, airports, and the "interests of national security as determined by the Secretary of Defense."⁸

Lake Region, submitted comments that the college operates a single turbine located just over 3 miles from the Devil's Lake Airport. Lake Region's comments expressed concern that the implementation of light mitigating technology is cost prohibitive with the turbine's energy performance contract providing "just enough" to cover the payments for the purchase and construction of the turbine not funded by legislative appropriation.⁹ As a result, Lake Region requests a waiver as written in proposed N.D. Admin. Code § 69-06-11-02(3).¹⁰ The final proposed rules provide for extensions due to economic and technical inability to implement the technology, and retain the waiver up to five megawatts.

After reviewing the comments for the new chapter 69-06-11, the Commission adopts the rules as revised.

Case No. GS-17-370 – Section 69-09-03-02 - Pipeline Safety

Written and oral comments by the Director of Public Utilities, Patrick Fahn, were provided at the hearing on behalf of Commission Staff. The Commission received no further comments regarding this section.

Commission Staff provided comments that under North Dakota Administrative Code chapter 69-09-03, the Commission adopts by reference the most recent amendments to pipeline safety regulations adopted by PHMSA.

⁷ 14 CFR § 77.5

⁸ Title 49 CFR § 44718; See also 14 CFR § 77.5(c)(3) and Advisory Circular No. 70/7460-1L, Section 14.2.3 (The FAA may deny ADLS applications based upon "proximity of the obstruction or group of obstructions to airports, low-altitude flight routes, military training areas, or other areas of frequent flight activity.")

⁹ PU-17-339, Docket No. 17, 18.

¹⁰ PU-17-339, Docket No. 18.

For gas pipeline safety and hazardous liquids pipeline safety, this proposed amendment updates and adopts by reference the current December 31, 2017 PHMSA safety regulations. The proposed amendments also update the rules to include the current December 31, 2017 PHMSA safety standards for LNG facilities under Title 49 CFR Part 193. Although the Commission currently has statutory authority over liquefied natural gas facilities, there were no jurisdictional intrastate liquefied natural gas facilities in North Dakota until 2017. As a result, PHMSA safety standards for LNG facilities are part of the proposed rulemaking.

The Commission received no further comments regarding this section and proposes to adopt these amendments without revision.

Case No. PU-17-371 -- Section 69-09-09-10 - Wind Decommissioning

Written and oral comments by Jerry Lein of Commission Staff were provided at the hearing. Staff testified that the Commission is proposing to amend the North Dakota Administrative Code chapter 69-09-09 to add a new section 69-09-09-10 establishing an ability to exempt small projects of only one or two turbines from certain decommissioning requirements:

The commission may grant a waiver of any requirement described in sections 69-09-09-03, 69-09-09-06, or 69-09-09-08 for a commercial wind energy conversion facility with a nameplate generating capacity of no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.

The Commission received no further comments regarding this section and the Commission proposes to adopt this new section without revision.

Discussion

The Commission agrees with adopting the proposed chapter 69-06-11 as revised and all other new sections or amendments without revisions.

Having reviewed the proposed rules, and the testimony and comments received, the Commission finds good cause for submitting the proposed rules, attached to and made a part of this order, to the Attorney General for an opinion as to legality.

Order

The Commission orders the proposed chapter 69-06-11, as revised, the proposed new section 69-09-09-10 and the proposed amendments to the North Dakota

Administrative Code attached to and made a part of this order, be submitted to the Attorney General for an opinion that the rules are approved as to legality.

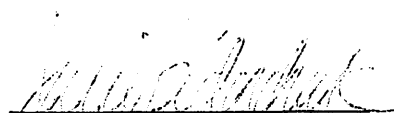
PUBLIC SERVICE COMMISSION



**Brian Kroshus
Commissioner**



**Randy Christmann
Chairman**



**Julie Fedorchak
Commissioner**

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Siting
Rulemaking

Case No. PU-17-339

March 29, 2018

ARTICLE 69-06
ENERGY CONVERSION AND TRANSMISSION FACILITY SITING

Chapter	
69-06-01	General Provisions
69-06-02	Utility Reporting Requirements
69-06-02.1	Requests for Jurisdictional Determination
69-06-03	Letter of Intent [Repealed]
69-06-04	Certificate of Site Compatibility
69-06-05	Transmission Facility Permit
69-06-06	Waiver of Procedures and Time Schedules
69-06-07	Emergency Certificate or Permit [Repealed]
69-06-08	Criteria
69-06-09	Continuing Suitability of Certificate or Permit
69-06-10	Small Wind Energy Conversion Facilities
69-06-11	<u>Wind Energy Conversion Facility Lighting Systems</u>

69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.
 - a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
 - b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.
 - c. County parks and recreational areas; municipal parks; parks owned or

administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.

- d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that if the commission finds that the prime farmland and unique farmland that will be removed from use for the life of the facility is of such small acreage as to be of negligible impact on agricultural productions, this exclusion does not apply.
- e. Irrigated land.
- f. Areas critical to the life stages of threatened or endangered animal or plant species.
- g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.
- h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.

2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:

- a. Areas ~~less than~~ within:
 - (1) One and one-tenth times the height of the turbine from interstate or state roadway right of way;
 - (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;
 - (3) One and one-tenth times the height of the turbine from any railroad right of way;
 - (4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and
 - (5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and three times the height of the turbine from an inhabited rural residence of a

nonparticipating landowner, unless a variance is granted. A variance may be granted if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in North Dakota Century Code chapter 17-04.

3. **Avoidance areas.** The following geographical areas may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.
 - a. Historical resources which are not designated as exclusion areas.
 - b. Areas within the city limits of a city or the boundaries of a military installation.
 - c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.
 - d. Areas that are geologically unstable.
 - e. Woodlands and wetlands.
 - f. Areas of recreational significance which are not designated as exclusion areas.
4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.
5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or

that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:

- a. The impact upon agriculture:
 - (1) Agricultural production.
 - (2) Family farms and ranches.
 - (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.
 - (4) Surface drainage patterns and ground water flow patterns.
 - (5) The agricultural quality of the cropland.
- b. The impact upon the availability and adequacy of:
 - (1) Law enforcement.
 - (2) School systems and education programs.
 - (3) Governmental services and facilities.
 - (4) General and mental health care facilities.
 - (5) Recreational programs and facilities.
 - (6) Transportation facilities and networks.
 - (7) Retail service facilities.
 - (8) Utility services.
- c. The impact upon:
 - (1) Local institutions.
 - (2) Noise-sensitive land uses.
 - (3) Light-sensitive land uses.
 - (4) Rural residences and businesses.
 - (5) Aquifers.

- (6) Human health and safety.
 - (7) Animal health and safety.
 - (8) Plant life.
 - (9) Temporary and permanent housing.
 - (10) Temporary and permanent skilled and unskilled labor.
- d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.
6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:
- a. Recycling of the conversion byproducts and effluents.
 - b. Energy conservation through location, process, and design.
 - c. Training and utilization of available labor in this state for the general and specialized skills required.
 - d. Use of a primary energy source or raw material located within the state.
 - e. Not relocating residents.
 - f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.
 - g. Economies of construction and operation.
 - h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.
 - i. Use of citizen coordinating committees.
 - j. A commitment of a portion of the energy produced for use in this state.
 - k. Labor relations.
 - l. The coordination of facilities.

- m. Monitoring of impacts.
- n. A commitment to install lighting mitigation technology for wind energy conversion facilities subject to commercial availability and federal aviation administration approval.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; July 1, 2017; _____.

General Authority: NDCC 28-32-02, NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1, NDCC 49-22.1-03

CHAPTER 69-06-11

Wind Energy Conversion Facility Lighting Systems

Section

69-06-11-01 Definitions

69-06-11-02 Implementation

69-06-11-03 Service, Maintenance, Safety, and Lighting System Standards

69-06-11-01. Definitions.

In this chapter:

1. "Aircraft Detection Lighting System" means a sensor-based system designed to detect aircraft as they approach a wind energy conversion facility; this system automatically activates obstruction lights until they are no longer needed.
2. "Commission" means the public service commission.
3. "Light Intensity Dimming Solution Technology" means obstruction lighting that provides a means of tailoring the intensity level of lights according to surrounding visibility.
4. "Light-Mitigating Technology System" means aircraft detection lighting system, lighting intensity dimming solution technology, or a comparable solution capable of reducing the impact of nighttime lighting while maintaining night conspicuity sufficient to assist aircraft in identifying and avoiding collision with the facilities.
5. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.
6. "Wind Energy Conversion Facility" means any plant, addition, or combination of plant and addition, designed for or capable of generation

by wind energy conversion exceeding one-half megawatt of electricity.

69-06-11-02. Implementation.

1. A wind energy conversion facility for which a certificate of site compatibility was issued after June 5, 2016 must be equipped with a functioning light-mitigating technology in compliance with this chapter by December 31, 2019.
2. A wind energy conversion facility for which a certificate of site compatibility was issued before June 5, 2016 must be equipped with a functioning light-mitigation technology in compliance with this chapter by December 31, 2021. The Commission may grant an extension of time based on technical or economic feasibility considerations.
3. The commission may grant a waiver of this chapter for a wind energy conversion facility designed for or capable of generating no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.
4. To allow proper conspicuity of a turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration including the light mitigation technology is implemented.
5. Owner shall provide written notice to the commission upon implementation of light-mitigating technology in compliance with this chapter.
6. Owner is solely responsible for any costs associated with the implementation, operation, and maintenance of each light-mitigating technology system.
7. An extension request must be in writing and contain:
 - a. The purpose of the extension;
 - b. A description of the light-mitigating technologies submitted to the Federal Aviation Administration;
 - c. The technical or economic inability to implement light-mitigation technology systems;
 - d. The length of extension requested; and
 - e. Any other information requested by the commission.

69-06-11-03. Service, Maintenance, Safety, and Lighting System Standards.

Each light-mitigating technology system must be installed, operated, and maintained in accordance with United States Department of Transportation Federal

Aviation Administration regulations [14 CFR 1.1. et. seq] in effect as of [date of publishing rules].

History: Amended Effective 2017.

General Authority: NDCC 28-32-02, NDCC 49-22-18

Law Implemented: NDCC 49-22-16.4

State of North Dakota

Public Service Commission

**Public Service Commission
Pipeline Safety
Rulemaking**

Case No. GS-17-370

69-09-03-02. Adoption of regulations. The following parts of title 49, Code of Federal Regulations in effect as of ~~December 31, 2015~~December 31, 2017, are adopted by reference:

1. Part 190 - Pipeline Safety Programs and Rulemaking Procedures.
2. Part 191 - Transportation of Natural Gas and Other Gas by Pipeline, Annual Reports, Incident Reports, and Safety-Related Condition Reports.
3. Part 192 - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards.
4. Part 193 – Liquefied Natural Gas Facilities: Federal Safety Standards
- 4.5. Part 194 – Response Plans for Onshore Oil Pipelines
- 5.6. Part 195 - Transportation of Hazardous Liquids by Pipeline.
- 6.7. Part 199 - Drug and Alcohol Testing.

Copies of these regulations may be obtained from:

**Public Service Commission
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0480**

History: Effective June 1, 1984; amended effective July 1, 1986; January 1, 1988; March 1, 1990; February 1, 1992; August 1, 1993; August 1, 1994; February 1, 1996; July 1, 1997; July 1, 1998; September 1, 1999; August 1, 2000; January 1, 2002; November 1, 2003; May 1, 2005; July 1, 2006; April 1, 2008; January 1, 2010; April 1, 2012; April 1, 2015; October 1, 2016, _____.

General Authority: NDCC 28-32-02

Law Implemented: NDCC 49-02-01.2

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Public Service Commission
Wind Decommissioning
Rulemaking

Case No. PU-17-371

CHAPTER 69-09-09
WIND FACILITY DECOMMISSIONING

Section

69-0-9-1 69-09-09-01	Definitions
69-0-9-2 69-09-09-02	Decommissioning Responsibility
69-0-9-3 69-09-09-03	Abandonment and Useful Life - Certificate of Operation
69-09-09-04	Decommissioning Period
69-0-9-5 69-09-09-05	Decommissioning Requirements
69-0-9-6 69-09-09-06	Decommissioning Plan
69-0-9-7 69-09-09-07	Existing Facilities
69-0-9-8 69-09-09-08	Financial Assurance
69-0-9-9 69-09-09-09	Failure to Decommission

69-09-09-10. Wind Energy Conversion Facility – Waiver

The commission may grant a waiver of any requirement described in sections 69-09-09-03, 69-09-09-06, or 69-09-09-08 for a commercial wind energy conversion facility with a nameplate generating capacity of no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.

History: Effective

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Siting
Rulemaking

Case No. PU-17-339

Public Service Commission
Pipeline Safety
Rulemaking

Case No. GS-17-370

Public Service Commission
Wind Decommissioning
Rulemaking

Case No. PU-17-371

FISCAL NOTE

March 29, 2018

Adoption of the proposed rules regarding Chapter 69-06-11, Section 69-06-08-01, Section 69-09-03-02, and Section 69-09-09-10, is not expected to have any impact on state expenditures or revenues.

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-17-339

STAFF TESTIMONY
January 3, 2018

My name is Jerry Lein. I am a Public Utility Analyst with the Public Service Commission. The purpose of my testimony is to explain the proposed changes to the Commission's administrative rules pertaining to the siting of wind energy conversion facilities, Article 69-06 of the North Dakota Administrative Code promulgated under N.D.C.C. Chapter 49-22.

The Commission is proposing to amend the North Dakota Administrative Code section 69-06-08-01(2)(a)(5) to reflect the changes from the 2017 legislative session to North Dakota Century Code section 49-22-05.1 establishing a minimum wind turbine setback of three times the height of the turbine from an inhabited residence of a nonparticipating landowner.

The Commission is further proposing a new Chapter 69-06-11 to implement House Bill 1378 enacted during the 2017 legislative session as North Dakota Century Code section 49-22-16.4 providing that the Commission shall adopt rules relating to the implementation of light-mitigating technology systems on wind energy conversion facilities. In summary the new chapter would provide that a wind energy conversion facility permitted after June 5, 2016 must be equipped with a functioning USDOT/FAA approved light-mitigating technology by December 31, 2019. Facilities permitted before

June 5, 2016 must be so equipped by December 31, 2021. The proposed rule provided may grant a waiver for facilities with up to five MW of generating capacity and could grant extensions for facilities where the deadlines are not obtainable.

This concludes my testimony. I would be happy to answer any questions at this time. Thank you.



COMMENTS OF BASIN ELECTRIC POWER COOPERATIVE
Public Service Commission - Wind Energy Conversion Facility Lighting Systems
Case No. PU-17-339

Basin Electric Power Cooperative (Basin Electric) is a regional, consumer-owned, generation and transmission cooperative formed in 1961 to supply supplemental power to a consortium of rural electric distribution cooperatives. Basin Electric's core business is generating and delivering electricity to wholesale customers, primarily our member systems. As of the end of 2016, Basin Electric owns 4,015 megawatts (MW) and operates 5,003 MW of electric generating capacity including coal, wind, natural gas, and nuclear. Basin Electric supplies 141 rural electric member cooperative systems with wholesale electric power who in turn serve approximately 3 million consumers in a nine-state area.

Basin Electric respectfully submits the following comments to the Public Service Commission on Case No. PU-17-339. Our comments are related to the proposed North Dakota Administrative Code chapter 69-06-11 regarding Wind Energy Conversion Facility Lighting Systems. Our comments are regarding section 03 within 69-06-11.

This rule would retroactively apply to the PrairieWinds ND 1 project owned by Basin Electric located south of Minot. This project went online in late 2009 and consists of 77 turbines that generate approximately 120 MW of wind energy.

As proposed in the new Chapter 69-06-11-03, the Federal Aviation Administration has to approve any lighting system on all wind projects. That same approval and process is required when an existing lighting system is either modified or replaced. That approval is done on a case-by-case basis and takes a minimum of 90-120 days for approval (FAA Information).

Further complicating this process for Basin Electric is the fact that the PrairieWinds 1 project surrounds a ballistic missile base that includes a helicopter pad, and is within close proximity to the Minot Air Force Base, therefore changing the lighting system on this project also requires approval from the U.S. Air Force. To address that requirement we would suggest the following amendment:

69-06-1-03. Service, Maintenance, Safety, and Lighting System Standards.

Page 7:

Each light-mitigating technology system must be installed, operated, and maintained in accordance with United States Department of Transportation Federal Aviation Administration regulations [14 CFR 1.1 et. Seq] in effect as of [date of publishing rules] and receive Federal Aviation Administration, or any other federal agency with regulatory authority, approval prior to implementation.

Again, Basin Electric appreciates the opportunity to comment and welcomes additional dialogue and conversations with the commission regarding these and any other administrative issues.

-Info-Public Service Commission

From: lbest@restel.com
Sent: Friday, December 29, 2017 10:05 AM
To: -Info-Public Service Commission
Subject: Comments on proposed rule making, CHAPTER 69-06-11 Wind Energy Conversion Facility Lighting Systems
Attachments: Comment on Lighting_12_29_17.pdf

***** CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Darrell Nitschke, Executive Secretary, Public Service Commission, 600 East Boulevard Avenue, Department 408, Bismarck, North Dakota 58505-0480

Dear Mr. Nitschke,

Please accept this attached comment on the proposed changes to PSC policy on lighting for wind turbines. I have sent an original via mail as well.

Sincerely,
Lyle Best

12/24/17

Dear Commissioners:

Related to public comments invited for:

CHAPTER 69-06-11 Wind Energy Conversion Facility Lighting Systems

I would begin by speculating on the supposed need for this regulation. Is this driven primarily by aesthetic considerations? In other words fostered by complaints from individuals that don't like the look of the red blinking lights from wind turbines? If so, are there comparable measures proposed to use the same technology to extinguish the lights of the more dangerous radio towers, until an approaching aircraft is detected?

Is this measure thought necessary to reduce the light pollution that has dramatically increased across North Dakota in recent years? In that case, I would assume plans are underway to eliminate the flaring of natural gas, or at least convert those luminous flames to relatively clear flames by adding equipment to completely combust the incandescent carbon particles, which also leave a plume of soot rising into the air?

If the intent is to reduce electricity consumption, I applaud; but it seems a bit out of character for North Dakota legislators characteristically opposed to regulation in general and energy efficiency regulation especially (North Dakota currently ranks 51 out of 50 states and the District of Columbia). Furthermore, the current system was established with the goal of saving lives.

Realizing that the intent of the legislation is not the task before the PSC, let me turn to the practical issues involved.

- 1) as a licensed private pilot I recognize the importance of proper lighting for structures that pose a hazard to low-flying aircraft. I am also concerned with the reliability of a system that is intermittent and dependent on (most likely) a radar detection system. Virtually any system's engineer (and almost anyone with a modicum of common sense) will tell you that the more complex the system, the more modes of failure are available. If the primary purpose of this regulation is to reduce the unwanted (for some) appearance of a safety mechanism designed to save human life, it seems hard to argue that it should become more complex, and hence likely to fail.
- 2) Another aspect of the increased complexity is the possibility of intentionally disabling the system as a hostile act. It also seems conceivable that electronic interference from either an aircraft or ground-based radar system could confuse or inactivate the triggering mechanism and render the wind turbine without lighting.
- 3) In our litigious world, who will bear the responsibility for a failure to operate the system according to specifications? Will there be an electronic record logged to show whether the lights were operating when an accident occurred?

4) What actions will the PSC take to ensure that there is some parity in these requirements for other structures, such as radio towers? If light pollution is the motivating force, will the PSC use its good offices to address the overwhelmingly more adverse effects from natural gas flaring?

To the extent possible, I suggest that that PSC:

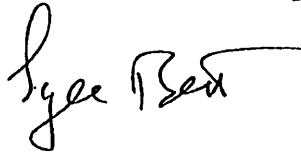
- 1) Recommend to the legislature that this proposed regulation is unwarranted and dangerous to the public (pilots)
- 2) Recommend to the legislature that this proposed regulation be also applicable to other structures (radio towers especially) to comply with the general legal principle of non-discrimination.
- 3) Recommend to the legislature that if this proposed regulation is intended to reduce light pollution, that other obvious sources of this pollution be addressed legislatively as well.
- 4) If the PSC is able to interpret or disregard portions of this legislation in accord with the above 3 principles, I would strongly encourage that.
- 5) Failing the above, I suggest that the entities manufacturing and installing the needed equipment be specifically held liable for any malfunction leading to an accident.

Respectfully,

Lyle Best, MD

1935 118th Ave NW

Watford City, ND 58854

A handwritten signature in black ink, appearing to read "Lyle Best", is written over the typed name and address.

-Info-Public Service Commission

From: Darling, Doug <doug.darling@lrsc.edu>
Sent: Wednesday, January 03, 2018 9:31 AM
To: -Info-Public Service Commission
Subject: 69.06.11 - light mitigating technology

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

The requirements in Case No. PU-17-339 - New Chapter 69-06-11 - Wind Energy Conversion Facility Lighting Systems for our turbine to have functioning light mitigation technology by December 31, 2021 is cost prohibitive with current light mitigation technology. The lighting system and radar needed to detect and activate the system will cost in excess of \$100,000 and possibly up to \$400,000 for our one turbine. We have any energy performance contract to pay off the costs of purchase and construction of the turbine not funded by legislative appropriation and we are just barely generating enough revenue to make the annual payments.

Our turbine site is a mile from the nearest occupied residence and the light is not an issue for the occupants. Our concern is that the turbine is located just over 3 miles from Devils Lake Airport and we want the turbine well lit for aviation traffic.

Doug Darling, Ph. D.
President
Lake Region State College
1801 College Drive N.
Devils Lake, ND 58301
(701) 662-1506
(701) 662-1570 fax



Public Service Commission
State of North Dakota

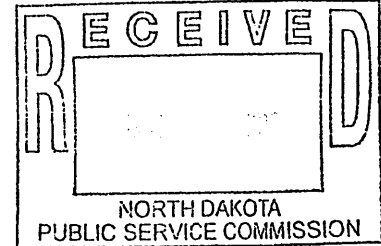
COMMISSIONERS

Randy Christmann
Julie Fedorchak
Brian Kroshus

Executive Secretary
Darrell Nitschke

600 East Boulevard, Dept. 408
Bismarck, North Dakota 58505-0480
Web: www.psc.nd.gov
E-mail: ndpsc@nd.gov
Phone: 701-328-2400
ND Toll Free: 1-877-245-6685
Fax: 701-328-2410
TDD: 800-366-6888 or 711

January 4, 2018



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

Via Hand Delivery

Re: Case No. PU-17-339
Public Service Commission
Siting
Rulemaking

Dear Mr. Nitschke:

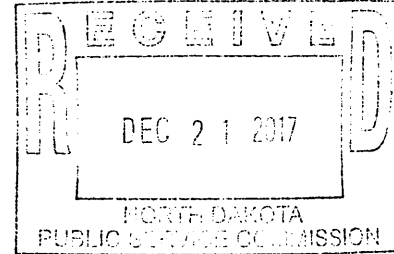
On December 21, 2017, Dr. Doug Darling, President of Lake Region State College provided a letter regarding implementation of light mitigation technology on the school's turbine site. On January 4, 2018, I had a telephone conversation with Dr. Darling. Dr. Darling requested to add the letter as rulemaking comments in Case No. PU-17-339.

Best Regards,

John Schuh
Legal Counsel

Enclosure

18 PU-17-339 Filed: 1/4/2018 Pages: 4
Comments on Proposed Rules



Darrell Nitschke
Executive Secretary, Public Service Commission
600 East Boulevard Avenue, Department 408
Bismarck, North Dakota 58505-0480

December 18, 2017

Dear Commissioners:

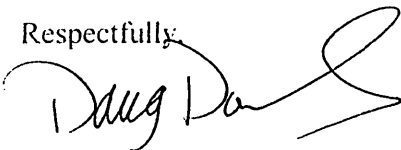
Lake Region State College worked with the PSC in 2011-2012 to go through the siting process for a single wind turbine. Construction was completed and our turbine came online in February of 2013. LRSC's turbine was the first to go through the process after the 2011 Legislative Session changed requirements so that facilities capable of generating more than ½ megawatt must go through the full siting process. We worked closely with the Commissioners and staff to gain site approval.

The requirements in Case No. PU-17-339 - New Chapter 69-06-11 - Wind Energy Conversion Facility Lighting Systems for our turbine to have functioning light mitigation technology by December 31, 2021 is cost prohibitive with current light mitigation technology. The lighting system and radar needed to detect and activate the system will cost in excess of \$100,000 and possibly up to \$400,000 for our one turbine. We have any energy performance contract to pay off the costs of purchase and construction of the turbine not funded by legislative appropriation and we are just barely generating enough revenue to make the annual payments.

Our turbine site is a mile from the nearest occupied residence and the light is not an issue for the occupants. Our concern is that the turbine is located just over 3 miles from Devils Lake Airport and we want the turbine well lit for aviation traffic.

69-06-11-02 #3 appears to allow for a waiver of this chapter for a wind energy conversion facility designed for or capable of generating no more than five megawatts of electricity. We would respectfully request a waiver for this chapter.

Respectfully,



Doug Darling, Ph.D.
President, Lake Region State College

36 **PU-11-686** Filed: 12/21/2017 Pages: 3
Request for waiver re light mitigation technology

Lake Region State College
Doug Darling, President

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; July 1, 2017; _____.

General Authority: NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1

CHAPTER 69-06-11
Wind Energy Conversion Facility Lighting Systems

Section

69-06-11-01 Definitions

69-06-11-02 Implementation

69-06-11-03 Service, Maintenance, Safety, and Lighting System Standards

69-06-11-01. Definitions.

In this chapter:

1. "Aircraft Detection Lighting System" means a sensor-based system designed to detect aircraft as they approach a wind energy conversion facility; this system automatically activates obstruction lights until they are no longer needed.
2. "Commission" means the public service commission.
3. "Light Intensity Dimming Solution Technology" means obstruction lighting that provides a means of tailoring the intensity level of lights according to surrounding visibility.
4. "Light-Mitigating Technology System" means aircraft detection lighting system, lighting intensity dimming solution technology, or a comparable solution capable of reducing the impact of nighttime lighting while maintaining night conspicuity sufficient to assist aircraft in identifying and avoiding collision with the facilities.
5. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.
6. "Wind Energy Conversion Facility" means any plant, addition, or combination of plant and addition, designed for or capable of generation by wind energy conversion exceeding one-half megawatt of electricity.

69-06-11-02. Implementation.

1. A wind energy conversion facility for which a certificate of site compatibility was issued after June 5, 2016 must be equipped with a functioning light-mitigating technology in compliance with this chapter by December 31, 2019.

2. A wind energy conversion facility for which a certificate of site compatibility was issued before June 5, 2016 must be equipped with a functioning light-mitigation technology in compliance with this chapter by December 31, 2021. The Commission may grant an extension of time based on technical or economic feasibility considerations.
3. The commission may grant a waiver of this chapter for a wind energy conversion facility designed for or capable of generating no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.
4. To allow proper conspicuity of a turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration including the light mitigation technology is implemented.
5. Owner shall provide written notice to the commission upon implementation of light-mitigating technology in compliance with this chapter.
6. Owner is solely responsible for any costs associated with the implementation, operation, and maintenance of each light-mitigating technology system.
7. An extension request must be in writing and contain:
 - a. The purpose of the extension;
 - b. A description of the light-mitigating technologies submitted to the Federal Aviation Administration;
 - c. The technical or economic inability to implement light-mitigation technology systems;
 - d. The length of extension requested; and
 - e. Any other information requested by the commission.

69-06-11-03. Service, Maintenance, Safety, and Lighting System Standards.

Each light-mitigating technology system must be installed, operated, and maintained in accordance with United States Department of Transportation Federal Aviation Administration regulations [14 CFR 1.1. et. Seq] in effect as of [date of publishing rules] and receive Federal Aviation Administration approval prior to implementation.

History: Amended Effective 2017.
General Authority: NDCC 49-22-18
Law Implemented: NDCC 49-22-05.1

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Public Service Commission
Pipeline Safety
Rulemaking**

Case No. GS-17-370

PUBLIC SERVICE COMMISSION STAFF TESTIMONY

January 3, 2018

My name is Patrick Fahn. I am the Director of the Public Utilities Division of the Public Service Commission.

The purpose of this testimony is to describe the proposed administrative rule changes pertaining to pipeline safety. Under North Dakota Administrative Code chapter 69-09-03, the Commission adopts by reference the most recent amendments to pipeline safety regulations adopted by the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA).

For gas pipeline safety and hazardous liquids pipeline safety, this proposed rule change adopts, by reference, amendments to safety regulations that have been adopted by PHMSA since December 31, 2015, current to December 31, 2017.

For safety standards regarding liquefied natural gas facilities, the Public Service Commission currently has statutory authority, and liquefied natural gas facilities are included under its gas safety program. However, no jurisdictional intrastate liquefied natural gas facilities existed in North Dakota until 2017. The Commission is adopting the PHMSA safety standards pertaining to liquefied

natural gas facilities, Title 49 Code of Federal Regulations Part 193 in effect as of December 31, 2017.

A description of PHMSA rule amendments since December 31, 2015, current to December 31, 2017 is attached.

This concludes my testimony.

Thank you.

PHMSA latest rulemakings with effective date after December 31, 2015 ending December 31, 2017

Part affected	Amendment No.	Federal Register	Description	Effective date after December 31, 2015
190	17	82 FR 19325	INFLATION ADJUSTMENT OF MAXIMUM CIVIL PENALTIES	4/27/17
190	18	81 FR 70980	ENHANCED EMERGENCY ORDER PROCEDURES	10/14/16
190	19	82 FR 7972	OPERATOR QUALIFICATION, COST RECOVERY, ACCIDENT AND INCIDENT NOTIFICATION, AND OTHER PIPELINE SAFETY CHANGES	3/24/17
191	24	81 FR 91860	SAFETY OF UNDERGROUND NATURAL GAS STORAGE FACILITIES	1/17/17
191	25	82 FR 7972	OPERATOR QUALIFICATION, COST RECOVERY, ACCIDENT AND INCIDENT NOTIFICATION, AND OTHER PIPELINE SAFETY CHANGES	3/24/17
192	121	81 FR 70987	EXPANDING THE USE OF EXCESS FLOW VALVES IN GAS DISTRIBUTION SYSTEMS TO APPLICATIONS OTHER THAN SINGLE-FAMILY RESIDENCES	4/14/17
192	122	81 FR 91860	SAFETY OF UNDERGROUND NATURAL GAS STORAGE FACILITIES	1/18/17, 12/17/17
192	123	82 FR 7972	OPERATOR QUALIFICATION, COST RECOVERY, ACCIDENT AND INCIDENT NOTIFICATION, AND OTHER PIPELINE SAFETY CHANGES	3/24/17
40	31	81 FR 52364	TECHNICAL AMENDMENT	8/8/16
194				
195	101	80 FR 7972	OPERATOR QUALIFICATION, COST RECOVERY, ACCIDENT AND INCIDENT NOTIFICATION, AND OTHER PIPELINE SAFETY CHANGES	3/24/17
199	27	82 FR 7972	OPERATOR QUALIFICATION, COST RECOVERY, ACCIDENT AND INCIDENT NOTIFICATION, AND OTHER PIPELINE SAFETY CHANGES	3/24/17
196		80 CFR 43836	Pipeline Safety: Pipeline Damage Prevention Programs, Action: Final Rule	
198		80 CFR 43836	Grants to Aid State Pipeline Safety Programs	

Part 190, Amendment #17 82 FR 19325 INFLATION ADJUSTMENT OF MAXIMUM CIVIL PENALTIES

Updated maximum civil penalty amounts: \$209,002 for violation of a regulation under 49 U.S.C. 60101, \$76,352 for violation of a regulation under 49 U.S.C. 60103 or 49 U.S.C. 60111, \$1,214 for violation of a regulation under 49 U.S.C. 60129.

Part 190, Amendment #18 81 FR 70980 ENHANCED EMERGENCY ORDER PROCEDURES

This rule establishes procedures for the issuance of emergency orders that will be used to address an unsafe condition or practice, or combination of unsafe conditions or practices, that pose an imminent hazard to public health and safety or the environment.

Part 190, Amendment #19 (see below)

Part 191, Amendment #24 81 FR 91860 SAFETY OF UNDERGROUND NATURAL GAS STORAGE FACILITIES

This rule revises the Federal pipeline safety regulations related to downhole facilities, including wells, wellbore tubing, and casing, at underground natural gas storage facilities. This rule also incorporates by reference two American Petroleum Institute (API) Recommended Practices (RP): API RP 1170, "Design and Operation of Solution-mined Salt Caverns used for Natural Gas Storage," issued in July 2015; and API RP 1171, "Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs," issued in September 2015.

Part 191, Amendment #25 (see below)

Part 192, Amendment #121 81 FR 70987 EXPANDING THE USE OF EXCESS FLOW VALVES IN GAS DISTRIBUTION SYSTEMS TO APPLICATIONS OTHER THAN SINGLE-FAMILY RESIDENCES

Excess flow valves (EFV), which are safety devices installed on natural gas distribution pipelines to reduce the risk of accidents, are currently required for new or replaced gas service lines servicing single-family residences. This rule expands this requirement to include new or replaced branched service lines servicing single-family residences, multifamily residences, and small commercial entities consuming gas volumes not exceeding 1,000 Standard Cubic Feet per Hour (SCFH). PHMSA is also amending part 192 to require the use of either manual service line shut-off valves (e.g., curb valves) or EFVs, if appropriate, for new or replaced service lines with meter capacities exceeding 1,000 SCFH. Lastly, this final rule requires operators to notify customers of their right to request installation of an EFV on service lines that are not being newly installed or replaced. PHMSA has left the question of who bears the cost of installing EFVs on service lines not being newly installed or replaced to the operator's rate-setter.

Part 192, Amendment #122 81 FR 91860 Safety of Underground Natural Gas Storage Facilities

This final rule amends the U.S. Department of Transportation's (DOT) regulation to address critical safety issues related to downhole facilities, including wells, wellbore tubing, and casing, at underground natural gas storage facilities. This rule incorporates by reference two American Petroleum Institute (API) Recommended Practices (RP): API RP 1170, "Design and Operation of Solution-mined Salt Caverns used for Natural Gas Storage," issued in July 2015; and API RP 1171, "Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs," issued in September 2015.

Part 192, Amendment #123 (see below)

Part 40, Amendment 31 (81 FR 52364) Technical Amendment

This final rule amends the U.S. Department of Transportation's (DOT) regulation to conform to recent legislation that changed the definition of the term "service agent" in the DOT drug and alcohol testing regulations. The final rule also revises the definition of "service agent" to include all entities that provide services for DOT mandated drug and alcohol programs.

Part 40, Amendment 32 (82 FR 52229) (effective Jan 1, 2018)

This final rule amends the U.S. Department of Transportation's (DOT) drug testing program regulation to add hydrocodone, hydromorphone, oxymorphone, and oxycodone to its drug-testing panel; add methylenedioxyamphetamine as an initial test analyte; and remove methylenedioxyethylamphetamine as a confirmatory test analyte. This final rule clarifies certain existing drug-testing program provisions and definitions, makes technical amendments, and removes the requirement for employers and Consortium/Third Party Administrators to submit blind specimens.

Part 190, Amendment #19 (82 FR 7972), Part 191, Amendment #25 (82 FR 7972), Part 192, Amendment #123 (82 FR 7972), Part 195, Amendment #101 (80 FR 7972), Part 199, Amendment #27 (82 FR 7972)

This final rule amends the U.S. Department of Transportation's (DOT) regulation to add a specific time frame for telephonic or electronic notifications of accidents and incidents and adds provisions for cost recovery for design reviews of certain new projects, for the renewal of expiring special permits, and sets out the process for requesting protection of confidential commercial information. This final rule also amends the drug and alcohol testing requirements, and incorporates consensus standards by reference for in-line inspection (ILI) and Stress Corrosion Cracking Direct Assessment (SCCDA).

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Public Utilities
Rulemaking**

Case No. PU-17-371

STAFF TESTIMONY
January 3, 2018

My name is Jerry Lein. I am a Public Utility Analyst with the Public Service Commission. The purpose of my testimony is to explain the proposed changes to the Commission's administrative rules pertaining to the siting of wind energy conversion facilities, Article 69-06 of the North Dakota Administrative Code promulgated under N.D.C.C. Chapter 49-22.

The Commission is proposing to amend the North Dakota Administrative Code chapter 69-09-09 to add a new section 69-09-09-10 to establish an ability to exempt small projects of only one or two turbines from certain decommissioning requirements:

"The commission may grant a waiver of any requirement described in sections 69-09-09-03, 69-09-09-06, or 69-09-09-08 for a commercial wind energy conversion facility with a nameplate generating capacity of no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver."

This concludes my testimony. I would be happy to answer any questions at this time. Thank you.