

MINNESOTA STATUTE AND REGULATIONS  
RELATING TO AREAS PREEMPTED BY NRC

Minnesota Statute and Regulations can be assessed by the following hyperlinks:

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## I. MINNESOTA STATUTES

### 1. Minnesota Statute 116C.705 *Findings.*

The legislature finds that the disposal and transportation of high level radioactive waste is of vital concern to the health, safety, and welfare of the people of Minnesota, and to the economic and environmental resources of Minnesota. To ensure the health, safety, and welfare of the people, and to protect the air, land, water, and other natural resources in the state from pollution, impairment, or destruction, it is necessary for the state to regulate and control, under the laws of the United States, the exploration for high level radioactive waste disposal within the state of Minnesota. It is the intent of the legislature to exercise all legal authority for the purpose of regulating the disposal and transportation of high level radioactive waste.

### 2. Minnesota Statute 116C.72 *Radioactive waste management facility.*

Notwithstanding any provision of sections 216C.05 to 216C.381 to the contrary, no person shall construct or operate a radioactive waste management facility within Minnesota unless expressly authorized by the Minnesota legislature.

### 3. Minnesota Statute 116C.73 *Transportation of radioactive wastes into state.*

Notwithstanding any provision of sections 216C.05 to 216C.381 to the contrary, no person shall transport radioactive wastes into the state of Minnesota for the purpose of disposal by burial in soil or permanent storage within Minnesota unless expressly authorized by the Minnesota legislature, except that radioactive wastes may be transported into the state for temporary storage in accordance with applicable federal and state law for up to 12 months pending transportation out of the state.

### 4. Minnesota Statute 116C.76 *Nuclear waste depository release into groundwater.*

Subdivision 1. Radionuclide release levels. Radioactive waste management facilities for spent nuclear fuel or high-level radioactive wastes must be designed to provide a reasonable expectation that the undisturbed performance of the radioactive waste management facility will not cause the radionuclide concentrations, averaged over any year, in groundwater to exceed:

(1) five picocuries per liter of radium-226 and radium-228;

(2) 15 picocuries per liter of alpha-emitting radionuclides including radium-226 and radium-228, but excluding radon; or

(3) the combined concentrations of radionuclides that emit either beta or gamma radiation that would produce an annual dose equivalent to the total body of any internal organ greater than four millirems per year if an individual consumed two liters per day of drinking water from the groundwater.

Subd. 2. Disposal restricted. The location or construction of a radioactive waste management

facility for high-level radioactive waste is prohibited where the average annual radionuclide concentrations in groundwater before construction of the facility exceed the limits in subdivision 1.

Subd. 3. Protection against radionuclide release. Radioactive waste management facilities must be selected, located, and designed to keep any allowable radionuclide releases to the groundwater as low as reasonably achievable.

5. *Minnesota Statute 116C.77 Legislative authorization for independent spent fuel storage installation at Prairie Island.*

The legislature recognizes that:

(1) the Minnesota Environmental Quality Board on May 16, 1991, reviewed and found adequate a final environmental impact statement ("EIS") on the proposal to construct and operate a dry cask storage facility for the temporary storage of spent nuclear fuel from the Prairie Island nuclear generating plant;

(2) the United States Nuclear Regulatory Commission reviewed and approved a safety analysis report on the facility and on October 19, 1993, granted a license for the facility; and

(3) the Public Utilities Commission in Docket No. E002/CN-91-91 reviewed the facility and approved a limited certificate of need approving the use of casks.

The Minnesota legislature in compliance with section 116C.72, hereby ratifies and approves the EIS and the limited certificate of need and authorizes the use of casks at Prairie Island in accordance with the terms and conditions of the certificate of need as modified by Laws 1994, chapter 641, and without further environmental review under chapter 116D or further administrative review under section 216B.243.

6. *116C.771 Additional cask limitations.*

(a) Five casks may be filled and used at Prairie Island on May 11, 1994.

(b) An additional four casks may be filled and used at Prairie Island if the Environmental Quality Board determines that, by December 31, 1996, the public utility operating the Prairie Island plant has filed a license application with the United States Nuclear Regulatory Commission for a spent nuclear fuel storage facility off of Prairie Island in Goodhue County, is continuing to make a good faith effort to implement the site, and has constructed, contracted for construction and operation, or purchased installed capacity of 100 megawatts of wind power in addition to wind power under construction or contract on May 11, 1994.

(c)(1) An additional eight casks may be filled and placed at Prairie Island if the legislature has not revoked the authorization under clause (2) or the public utility has satisfied the wind power and biomass mandate requirements in sections 216B.2423, subdivision 1, paragraph (a), clause (1), and 216B.2424, subdivision 5, paragraph (a), clause (1), and the alternative site in Goodhue County is operational or under construction. (2) If the site is not under construction or operational or the wind mandates are not satisfied, the legislature may revoke the authorization

for the additional eight casks by a law enacted prior to June 1, 1999.

(d) Except as provided under paragraph (e), dry cask storage capacity for high-level nuclear waste within the state may not be increased beyond the casks authorized by section 116C.77 or their equivalent storage capacity.

(e) This section does not prohibit a public utility from applying for or the Public Utilities Commission from granting a certificate of need for dry cask storage to accommodate the decommissioning of a nuclear power plant within this state.

7. Minnesota Statute 116C.772 *Public utility responsibilities.*

Subdivision 1. Definition. For the purpose of this section, "public utility" means the public utility operating the Prairie Island nuclear generating plant.

Subd. 2. Dry cask alternatives study. The public utility must submit to the Legislative Electric Energy Task Force a reevaluation of all alternatives and combinations of those alternatives to dry cask storage.

Subd. 3. Worker transition plan. The public utility must submit to the Department of Employment and Economic Development a worker transition plan if there is a shutdown of the Prairie Island nuclear generating plant for longer than six months.

Subd. 4. Nuclear power phase-out plan. The public utility must submit to the Electric Energy Task Force a detailed plan for the phase-out of all nuclear power generated by the utility.

Subd. 5. Decommissioning plan. The public utility must submit to the Electric Energy Task Force a decommissioning plan for TN-40 storage casks after the casks are emptied of spent fuel.

8. Minnesota Statute 116C.773 *Contractual agreement.*

The authorization for dry casks contained in section 116C.77 is not effective until the governor, on behalf of the state, and the public utility operating the Prairie Island nuclear plant enter into an agreement binding the parties to the terms of sections 116C.771 and 116C.772 and the mandate for 200 megawatts of wind power and 75 megawatts of biomass required by December 31, 2002, in sections 216B.2423, subdivision 1, and 216B.2424. The Mdewakanton Dakota Tribal Council at Prairie Island is an intended third-party beneficiary of this agreement and has standing to enforce the agreement.

9. Minnesota Statute 116C.774 *Authorization.*

To the extent that the Radioactive Waste Management Act, section 116C.72, requires legislative authorization of the operation of certain facilities, this section expressly authorizes the continued operation of the Monticello nuclear generating plant spent nuclear fuel pool storage facility and the Prairie Island nuclear generating plant spent nuclear fuel pool storage facility.

10. Minnesota Statute 116C.775 *Shipment priorities; Prairie Island.*

If a storage or disposal site becomes available outside of the state to accept high-level nuclear waste stored at Prairie Island, the waste contained in dry casks shall be shipped to that site before the shipment of any waste from the spent nuclear fuel storage pool. Once waste is shipped that was contained in a cask, the cask must be decommissioned and not used for further storage.

11. Minnesota Statute 116C.776 *Alternative cask technology for spent fuel storage.*

If the Public Utilities Commission determines that casks or other containers that allow for transportation as well as storage of spent nuclear fuel exist and are economically feasible for storage and transportation of spent nuclear fuel generated by the Prairie Island nuclear power generating plant, the commission shall order their use to replace use of the casks that are only usable for storage, but not transportation. If the commission orders use of dual-purpose casks under this section, it must authorize use of a number of dual-purpose casks that provides the same total storage capacity that is authorized under sections 116C.77 to 116C.779; provided, that the total cask storage capacity permitted under sections 116C.77 to 116C.779 may not exceed the capacity of the TN-40 casks authorized under section 116C.77.

12. Minnesota Statute 116C.777 *Site.*

The spent fuel contents of dry casks located on Prairie Island must be moved immediately upon the availability of another site for storage of the spent fuel that is not located on Prairie Island.

13. Minnesota Statute 116C.778 *Reracking.*

The spent fuel storage pool at Prairie Island may be reracked a third time. The reracking does not require legislative authorization but is subject to other applicable state review. The additional storage capacity added by the third reracking and utilized when added to the total storage capacity of dry cask storage utilized, cannot exceed the total capacity of 17 TN-40 casks.

14. Minnesota Statute 116C.83 *Authorization for additional dry cask storage.*

Subdivision 1. Authorization to end of current Prairie Island license. Subject to the dry cask storage limits of the federal license for the independent spent-fuel storage installation at Prairie Island, the public utility that owns the Prairie Island nuclear generation plant has authorization for sufficient dry cask storage capacity at that installation to allow:

- (1) the unit 1 reactor at Prairie Island to operate until the end of its current license in 2013; and
- (2) the unit 2 reactor at Prairie Island to operate until the end of its current license in 2014.

Subd. 2. Commission process for future additional authorization. Authorization of any additional dry cask storage other than that provided for in subdivision 1, or expansion or establishment of an independent spent-fuel storage facility at a nuclear generation facility in this state, is subject to approval of a certificate of need by the Public Utilities Commission pursuant to section

216B.243. In any proceeding under this subdivision, the commission may make a decision that could result in a shutdown of a nuclear generating facility. In considering an application for a certificate of need pursuant to this subdivision, the commission may consider whether the public utility that owns the nuclear generation facility in the state is in compliance with section 216B.1691 and the utility's past performance under that section.

Subd. 3. Legislative review. (a) To allow opportunity for review by the legislature, a decision by the commission on an application for a certificate of need pursuant to subdivision 2 is stayed until the June 1 following the next regular annual session of the legislature that begins after the date of the commission decision. By January 15 of the year of that legislative session, the commission shall issue a report to the chairs of the house and senate committees with jurisdiction over energy and environmental policy issues, providing a summary of the commission's decision and the grounds for that decision, the alternatives considered and rejected by the commission, and the reasons for rejecting those alternatives. If the legislature does not modify or reject the commission's decision by law enacted during that regular legislative session, the commission's decision shall become effective on the expiration of the stay.

(b) The stay of a commission decision to approve an application for a certificate of need for additional dry cask storage under subdivision 2 does not apply to the fabrication of the spent-fuel storage casks. However, if the utility proceeds with the fabrication of casks, it does so bearing the risk of an adverse legislative decision.

Subd. 4. Other conditions. (a) The storage of spent nuclear fuel in the pool and in dry casks at a nuclear generating plant must be managed to facilitate the shipment of waste out of state to a permanent or interim storage facility as soon as feasible in a manner that allows the continued operation of the plant consistent with sections 116C.71 to 116C.83 and 216B.1645, subdivision 4.

(b) The authorization for storage capacity pursuant to this section is limited to the storage of spent nuclear fuel generated by a Minnesota nuclear generation facility and stored on the site of that facility.

Subd. 5. Water standards. The standards established in section 116C.76, subdivision 1, clauses (1) to (3), apply to an independent spent-fuel installation. Such an installation must be operated in accordance with those standards.

Subd. 6. Environmental review and protection. (a) The siting, construction, and operation of an independent spent-fuel storage installation located on the site of a Minnesota generation facility for dry cask storage of spent nuclear fuel generated solely by that facility is subject to all environmental review and protection provisions of this chapter and chapters 115, 115B, 116, 116B, 116D, and 216B, and rules associated with those chapters, except those statutes and rules that apply specifically to a radioactive waste management facility as defined in section 116C.71, subdivision 7.

(b) An environmental impact statement is required under chapter 116D for a proposal to construct and operate a new or expanded independent spent-fuel storage installation. The Environmental Quality Board shall be the responsible governmental unit for the environmental

impact statement. Prior to finding the statement adequate, the board must find that the applicant has demonstrated that the facility is designed to provide a reasonable expectation that the operation of the facility will not result in groundwater contamination in excess of the standards established in section 116C.76, subdivision 1, clauses (1) to (3).

15. Minnesota Statute 116C.76 *Nuclear waste depository release into groundwater.*

Subdivision 1. Radionuclide release levels. Radioactive waste management facilities for spent nuclear fuel or high-level radioactive wastes must be designed to provide a reasonable expectation that the undisturbed performance of the radioactive waste management facility will not cause the radionuclide concentrations, averaged over any year, in groundwater to exceed:

(1) five picocuries per liter of radium-226 and radium-228;

(2) 15 picocuries per liter of alpha-emitting radionuclides including radium-226 and radium-228, but excluding radon; or

(3) the combined concentrations of radionuclides that emit either beta or gamma radiation that would produce an annual dose equivalent to the total body of any internal organ greater than four millirems per year if an individual consumed two liters per day of drinking water from the groundwater.

Subd. 2. Disposal restricted. The location or construction of a radioactive waste management facility for high-level radioactive waste is prohibited where the average annual radionuclide concentrations in groundwater before construction of the facility exceed the limits in subdivision

Subd. 3. Protection against radionuclide release. Radioactive waste management facilities must be selected, located, and designed to keep any allowable radionuclide releases to the groundwater as low as reasonably achievable.

16. Minnesota Statute 115.069 *Radionuclide pollution; high-level nuclear waste depository.*

The determination of whether the location, construction, or operation of a depository for spent nuclear fuel or high-level radioactive waste can reasonably be expected to cause radionuclide pollution of potable groundwater in violation of section 115.065 shall be made in accordance with the provisions of section 116C.76.

17. Minnesota Statute 216B.2421 *Definition of large energy facility.*

Subdivision 1. Applicability. The definition in this section applies to this section and sections 216B.2422 and 216B.243.

Subd. 2. Large energy facility. "Large energy facility" means:

(1) any electric power generating plant or combination of plants at a single site with a combined capacity of 50,000 kilowatts or more and transmission lines directly associated with the plant that are necessary to interconnect the plant to the transmission system;

- (2) any high-voltage transmission line with a capacity of 200 kilovolts or more;
- (3) any high-voltage transmission line with a capacity of 100 kilovolts or more with more than ten miles of its length in Minnesota or that crosses a state line;
- (4) any pipeline greater than six inches in diameter and having more than 50 miles of its length in Minnesota used for the transportation of coal, crude petroleum or petroleum fuels or oil, or their derivatives;
- (5) any pipeline for transporting natural or synthetic gas at pressures in excess of 200 pounds per square inch with more than 50 miles of its length in Minnesota;
- (6) any facility designed for or capable of storing on a single site more than 100,000 gallons of liquefied natural gas or synthetic gas;
- (7) any underground gas storage facility requiring a permit pursuant to section 1031.681;
- (8) any nuclear fuel processing or nuclear waste storage or disposal facility; and (Emphasis added)
- (9) any facility intended to convert any material into any other combustible fuel and having the capacity to process in excess of 75 tons of the material per hour.

18. Minnesota Statute 216B.243 *Certificate of need for large energy facility.*

Subdivision 1. Assessment of need criteria. The commission shall, pursuant to chapter 14 and sections 216C.05 to 216C.30 and this section, adopt assessment of need criteria to be used in the determination of need for large energy facilities pursuant to this section.

Subd. 2. Certificate required. No large energy facility shall be sited or constructed in Minnesota without the issuance of a certificate of need by the commission pursuant to sections 216C.05 to 216C.30 and this section and consistent with the criteria for assessment of need.

Subd. 3. Showing required for construction. No proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need. In assessing need, the commission shall evaluate:

- (1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;
- (2) the effect of existing or possible energy conservation programs under sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand;
- (3) the relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section 216C.18;

- (4) promotional activities that may have given rise to the demand for this facility;
- (5) benefits of this facility, including its uses to protect or enhance environmental quality, and to increase reliability of energy supply in Minnesota and the region;
- (6) possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation;
- (7) the policies, rules, and regulations of other state and federal agencies and local governments; and
- (8) any feasible combination of energy conservation improvements, required under section 216B.241, that can (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically.

Subd. 3a. Use of renewable resource. The commission may not issue a certificate of need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.

Subd. 3b. Nuclear power plant; new construction prohibited; relicensing. (a) The commission may not issue a certificate of need for the construction of a new nuclear-powered electric generating plant. (Emphasis added)

(b) Any certificate of need for additional storage of spent nuclear fuel for a facility seeking a license extension shall address the impacts of continued operations over the period for which approval is sought. (Emphasis added)

Subd. 4. Application for certificate; hearing. Any person proposing to construct a large energy facility shall apply for a certificate of need prior to applying for a site or route permit under sections 116C.51 to 116C.69 or construction of the facility. The application shall be on forms and in a manner established by the commission. In reviewing each application the commission shall hold at least one public hearing pursuant to chapter 14. The public hearing shall be held at a location and hour reasonably calculated to be convenient for the public. An objective of the public hearing shall be to obtain public opinion on the necessity of granting a certificate of need. The commission shall designate a commission employee whose duty shall be to facilitate citizen participation in the hearing process. If the commission and the Environmental Quality Board determine that a joint hearing on siting and need under this subdivision and section 116C.57, subdivision 2d, is feasible, more efficient, and may further the public interest, a joint hearing under those subdivisions may be held.

Subd. 5. Approval, denial, or modification. Within six months of the submission of an

application, the commission shall approve or deny a certificate of need for the facility. Approval or denial of the certificate shall be accompanied by a statement of the reasons for the decision. Issuance of the certificate may be made contingent upon modifications required by the commission.

Subd. 6. Application fees; rules. Any application for a certificate of need shall be accompanied by the fee required pursuant to this subdivision. The maximum fee shall be \$50,000, except for an application for an electric power generating plant as defined in section 216B.2421, subdivision 2, clause (1), or a high-voltage transmission line as defined in section 216B.2421, subdivision 2, clause (2), for which the maximum fee shall be \$100,000. The commission may require an additional fee to recover the costs of any rehearing. The fee for a rehearing shall not be greater than the actual cost of the rehearing or the maximum fee specified above, whichever is less. The commission shall establish by rule pursuant to chapter 14 and sections 216C.05 to 216C.30 and this section, a schedule of fees based on the output or capacity of the facility and the difficulty of assessment of need. Money collected in this manner shall be credited to the general fund of the state treasury.

Subd. 7. Participation by other agency or political subdivision. Other state agencies authorized to issue permits for siting, construction or operation of large energy facilities, and those state agencies authorized to participate in matters before the commission involving utility rates and adequacy of utility services, shall present their position regarding need and participate in the public hearing process prior to the issuance or denial of a certificate of need. Issuance or denial of certificates of need shall be the sole and exclusive prerogative of the commission and these determinations and certificates shall be binding upon other state departments and agencies, regional, county, and local governments and special purpose government districts except as provided in sections 116C.01 to 116C.08 and 116D.04, subdivision 9.

Subd. 8. Exemptions. This section does not apply to:

(1) cogeneration or small power production facilities as defined in the Federal Power Act, United States Code, title 16, section 796, paragraph (17), subparagraph (A), and paragraph (18), subparagraph (A), and having a combined capacity at a single site of less than 80,000 kilowatts or to plants or facilities for the production of ethanol or fuel alcohol nor in any case where the commission shall determine after being advised by the attorney general that its application has been preempted by federal law;

(2) a high-voltage transmission line proposed primarily to distribute electricity to serve the demand of a single customer at a single location, unless the applicant opts to request that the commission determine need under this section or section 216B.2425;

(3) the upgrade to a higher voltage of an existing transmission line that serves the demand of a single customer that primarily uses existing rights-of-way, unless the applicant opts to request that the commission determine need under this section or section 216B.2425;

(4) a high-voltage transmission line of one mile or less required to connect a new or upgraded substation to an existing, new, or upgraded high-voltage transmission line;

(5) conversion of the fuel source of an existing electric generating plant to using natural gas; or

(6) modification of an existing electric generating plant to increase efficiency, as long as the capacity of the plant is not increased more than ten percent or more than 100 megawatts, whichever is greater.

19. Minnesota Statute 216B.2423 *Wind power mandate.*

Subdivision 1. Mandate. A public utility, as defined in section 216B.02, subdivision 4, that operates a nuclear-powered electric generating plant within this state must construct and operate, purchase, or contract to construct and operate: (1) 225 megawatts of electric energy installed capacity generated by wind energy conversion systems within the state by December 31, 1998; and (2) an additional 200 megawatts of installed capacity so generated by December 31, 2002. (Emphasis added)

For the purpose of this section, "wind energy conversion system" has the meaning given it in section 216C.06, subdivision 19.

Subd. 2. Resource planning mandate. The Public Utilities Commission shall order a public utility subject to subdivision 1, to construct and operate, purchase, or contract to purchase an additional 400 megawatts of electric energy installed capacity generated by wind energy conversion systems by December 31, 2002, subject to resource planning and least cost planning requirements in section 216B.2422.

Subd. 2a. Site preference. The Public Utilities Commission shall ensure that a utility subject to the requirements of subdivision 1, clause (2), shall implement that clause with a preference for wind energy conversion systems within the state. This preference shall not prevent the utility from constructing or contracting to construct wind energy conversion systems outside the state, if the Public Utilities Commission determines that selection of a facility within the state conflicts with the requirements of section 216B.03.

Subd. 3. Standard contract for wind energy conversion systems. The Public Utilities Commission shall require a public utility subject to subdivision 1 to develop and file in a form acceptable to the commission by October 1, 1997, a standard form contract for the purchase of electricity from wind conversion systems with installed capacity of two megawatts and less. For purposes of applying the two megawatts limit, the installed capacity sold to the public utility from a single seller or affiliated group of sellers shall be cumulated. The standard contract shall include all the terms and conditions for purchasing wind-generated power by the utility, except for price and any other specific terms necessary to ensure system reliability and safety, which shall be separately negotiable.

20. Minnesota Statute 216B.244 *Nuclear plant capacity requirements.*

A reactor unit at a nuclear power electric generating plant that has an annual load capacity factor of less than 55 percent for each of three consecutive calendar years must be shut down and cease operating no later than 500 days after the end of the third such consecutive calendar year. For the purposes of this section, "load capacity factor" means the ratio between a reactor unit's average load and its peak load.

21. Minnesota Statute 216B.2424 *Biomass power mandate.*

Subdivision 1. Farm-grown closed-loop biomass. (a) For the purposes of this section, "farm-grown closed-loop biomass" means biomass, as defined in section 216C.051, subdivision 7, that:

(1) is intentionally cultivated, harvested, and prepared for use, in whole or in part, as a fuel for the generation of electricity;

(2) when combusted, releases an amount of carbon dioxide that is less than or approximately equal to the carbon dioxide absorbed by the biomass fuel during its growing cycle; and

(3) is fired in a new or substantially retrofitted electric generating facility that is:

(i) located within 400 miles of the site of the biomass production; and

(ii) designed to use biomass to meet at least 75 percent of its fuel requirements.

(b) The legislature finds that the negative environmental impacts within 400 miles of the facility resulting from transporting and combusting the biomass are offset in that region by the environmental benefits to air, soil, and water of the biomass production.

(c) Among the biomass fuel sources that meet the requirements of paragraph (a), clause (2) are poplar, aspen, willow, switch grass, sorghum, alfalfa, and cultivated prairie grass.

Subd. 2. Interim exemption. (a) A biomass project proposing to use, as its primary fuel over the life of the project, short-rotation woody crops, may use as an interim fuel agricultural waste and other biomass which is not farm-grown closed-loop biomass for up to six years after the project's electric generating facility becomes operational; provided, the project developer demonstrates the project will use the designated short-rotation woody crops as its primary fuel after the interim period and provided the location of the interim fuel production meets the requirements of subdivision 1, paragraph (a), clause (3).

(b) A biomass project proposing to use, as its primary fuel over the life of the project, short-rotation woody crops, may use as an interim fuel agricultural waste and other biomass which is not farm-grown closed-loop biomass for up to three years after the project's electric generating facility becomes operational; provided, the project developer demonstrates the project will use the designated short-rotation woody crops as its primary fuel after the interim period.

(c) A biomass project that uses an interim fuel under the terms of paragraph (b) may, in addition, use an interim fuel under the terms of paragraph (a) for six years less the number of years that an interim fuel was used under paragraph (b).

(d) A project developer proposing to use an exempt interim fuel under paragraphs (a) and (b) must demonstrate to the public utility that the project will have an adequate supply of short-rotation woody crops which meet the requirements of subdivision 1 to fuel the project after the interim period.

Subd. 3. Fuel exemption. Over the duration of the contract of a biomass power facility selected to satisfy the mandate in subdivision 5, fuel sources that are not biomass may be used to

satisfy up to 25 percent of the fuel requirements of a biomass power facility selected to satisfy the biomass power mandate in subdivision 5, except that agricultural crop wastes, such as oat hulls, may be used to satisfy more than 25 percent of the fuel requirements of a power facility selected to satisfy the biomass power mandate in subdivision 5 if the wastes are co-fired with the fuel authorized for the facility. A biomass power facility selected to satisfy the mandate in subdivision 5 also may use fuel sources that are not biomass during any period when biomass fuel sources are not reasonably available to the facility due to any circumstances constituting an act of God. Fuel sources that are not biomass used during such a period of biomass fuel source unavailability shall not be counted toward the 25 percent exemption provided in this subdivision. For purposes of this subdivision, "act of God" means any natural disaster or other natural phenomenon of an exceptional, inevitable, or irresistible character, including, but not limited to, flood, fire, drought, earthquake, and crop failure resulting from climatic conditions, infestation, or disease.

Subd. 4. Financial viability. A biomass project developer must demonstrate to the public utility evidence of sufficient financial viability necessary for the construction and operation of the biomass project.

Subd. 5. Mandate. (a) A public utility, as defined in section 216B.02, subdivision 4, that operates a nuclear-powered electric generating plant within this state must construct and operate, purchase, or contract to construct and operate (1) by December 31, 1998, 50 megawatts of electric energy installed capacity generated by farm-grown closed-loop biomass scheduled to be operational by December 31, 2001; and (2) by December 31, 1998, an additional 75 megawatts of installed capacity so generated scheduled to be operational by December 31, 2002. (Emphasis added)

(b) Of the 125 megawatts of biomass electricity installed capacity required under this subdivision, no more than 55 megawatts of this capacity may be provided by a facility that uses poultry litter as its primary fuel source and any such facility:

(1) need not use biomass that complies with the definition in subdivision 1;

(2) must enter into a contract with the public utility for such capacity, that has an average purchase price per megawatt hour over the life of the contract that is equal to or less than the average purchase price per megawatt hour over the life of the contract in contracts approved by the Public Utilities Commission before April 1, 2000, to satisfy the mandate of this section, and file that contract with the Public Utilities Commission prior to September 1, 2000; and

(3) must schedule such capacity to be operational by December 31, 2002.

(c) Of the total 125 megawatts of biomass electric energy installed capacity required under this section, no more than 75 megawatts may be provided by a single project.

(d) Of the 75 megawatts of biomass electric energy installed capacity required under paragraph (a), clause (2), no more than 33 megawatts of this capacity may be provided by a St. Paul district heating and cooling system cogeneration facility utilizing waste wood as a primary fuel source. The St. Paul district heating and cooling system cogeneration facility need not use biomass that complies with the definition in subdivision 1.

(e) The public utility must accept and consider on an equal basis with other biomass proposals:

(1) a proposal to satisfy the requirements of this section that includes a project that exceeds the megawatt capacity requirements of either paragraph (a), clause (1) or (2), and that proposes to sell the excess capacity to the public utility or to other purchasers; and

(2) a proposal for a new facility to satisfy more than ten but not more than 20 megawatts of the electrical generation requirements by a small business-sponsored independent power producer facility to be located within the northern quarter of the state, which means the area located north of Constitutional Route No. 8 as described in section 161.114, subdivision 2, and that utilizes biomass residue wood, sawdust, bark, chipped wood, or brush to generate electricity. A facility described in this clause is not required to utilize biomass complying with the definition in subdivision 1, but must be under construction by December 31, 2005.

(f) If a public utility files a contract with the commission for electric energy installed capacity that uses poultry litter as its primary fuel source, the commission must do a preliminary review of the contract to determine if it meets the purchase price criteria provided in paragraph (b), clause (2), of this subdivision. The commission shall perform its review and advise the parties of its determination within 30 days of filing of such a contract by a public utility. A public utility may submit by September 1, 2000, a revised contract to address the commission's preliminary determination.

(g) The commission shall finally approve, modify, or disapprove no later than July 1, 2001, all contracts submitted by a public utility as of September 1, 2000, to meet the mandate set forth in this subdivision.

(h) If a public utility subject to this section exercises an option to increase the generating capacity of a project in a contract approved by the commission prior to April 25, 2000, to satisfy the mandate in this subdivision, the public utility must notify the commission by September 1, 2000, that it has exercised the option and include in the notice the amount of additional megawatts to be generated under the option exercised. Any review by the commission of the project after exercise of such an option shall be based on the same criteria used to review the existing contract.

(i) A facility specified in this subdivision qualifies for exemption from property taxation under section 272.02, subdivision 43.

Subd. 5a. Reduction of biomass mandate. (a) Notwithstanding subdivision 5, the biomass electric energy mandate shall be reduced from 125 megawatts to 110 megawatts.

(b) The Public Utilities Commission shall approve a request pending before the Public Utilities Commission as of May 15, 2003, for an amendment and assignment of a contract for power from a facility that uses short-rotation, woody crops as its primary fuel previously approved to satisfy a portion of the biomass mandate if the developer of the project agrees to reduce the size of its project from 50 megawatts to 35 megawatts, while maintaining a price for energy at or below the current contract price.

Subd. 6. Remaining megawatt compliance process. (a) If there remain megawatts of biomass

power generating capacity to fulfill the mandate in subdivision 5 after the commission has taken final action on all contracts filed by September 1, 2000, by a public utility, this subdivision governs final compliance with the biomass energy mandate in subdivision 5 subject to the requirements of subdivisions 7 and 8.

(b) To the extent not inconsistent with this subdivision, the provisions of subdivisions 2, 3, 4, and 5 apply to proposals subject to this subdivision.

(c) A public utility must submit proposals to the commission to complete the biomass mandate. The commission shall require a public utility subject to this section to issue a request for competitive proposals for projects for electric generation utilizing biomass as defined in paragraph (f) of this subdivision to provide the remaining megawatts of the mandate. The commission shall set an expedited schedule for submission of proposals to the utility, selection by the utility of proposals or projects, negotiation of contracts, and review by the commission of the contracts or projects submitted by the utility to the commission.

(d) Notwithstanding the provisions of subdivisions 1 to 5 but subject to the provisions of subdivisions 7 and 8, a new or existing facility proposed under this subdivision that is fueled either by biomass or by co-firing biomass with nonbiomass may satisfy the mandate in this section. Such a facility need not use biomass that complies with the definition in subdivision 1 if it uses biomass as defined in paragraph (f) of this subdivision. Generating capacity produced by co-firing of biomass that is operational as of April 25, 2000, does not meet the requirements of the mandate, except that additional co-firing capacity added at an existing facility after April 25, 2000, may be used to satisfy this mandate. Only the number of megawatts of capacity at a facility which co-fires biomass that are directly attributable to the biomass and that become operational after April 25, 2000, count toward meeting the biomass mandate in this section.

(e) Nothing in this subdivision precludes a facility proposed and approved under this subdivision from using fuel sources that are not biomass in compliance with subdivision 3.

(f) Notwithstanding the provisions of subdivision 1, for proposals subject to this subdivision, "biomass" includes farm-grown closed-loop biomass; agricultural wastes, including animal, poultry, and plant wastes; and waste wood, including chipped wood, bark, brush, residue wood, and sawdust.

(g) Nothing in this subdivision affects in any way contracts entered into as of April 25, 2000, to satisfy the mandate in subdivision 5.

(h) Nothing in this subdivision requires a public utility to retrofit its own power plants for the purpose of co-firing biomass fuel, nor is a utility prohibited from retrofitting its own power plants for the purpose of co-firing biomass fuel to meet the requirements of this subdivision.

Subd. 7. Effect on existing projects. The commission may not approve a project proposed after April 25, 2000, which would have an adverse impact on the ability of a project approved before April 25, 2000, to obtain an adequate supply of the fuel source designated for the project.

Subd. 8. Agricultural biomass requirement. Of the 125 megawatts mandated in subdivision 5, at least 75 megawatts of the generating capacity must be generated by facilities that use

agricultural biomass as the principal fuel source. For purposes of this subdivision, agricultural biomass includes only farm-grown closed-loop biomass and agricultural waste, including animal, poultry, and plant wastes. For purposes of this subdivision, "principal fuel source" means a fuel source that satisfies at least 75 percent of the fuel requirements of an electric power generating facility. Nothing in this subdivision is intended to expand the fuel source requirements of subdivision 5.

#### 16C.779 Funding for renewable development.

Subdivision 1. Renewable development account. (a) The public utility that owns the Prairie Island nuclear generating plant must transfer to a renewable development account \$16,000,000 annually each year the plant is in operation, and \$7,500,000 each year the plant is not in operation if ordered by the commission pursuant to paragraph (c). The fund transfer must be made if nuclear waste is stored in a dry cask at the independent spent-fuel storage facility at Prairie Island for any part of a year. Funds in the account may be expended only for development of renewable energy sources. Preference must be given to development of renewable energy source projects located within the state.

(b) Expenditures from the account may only be made after approval by order of the Public Utilities Commission upon a petition by the public utility.

(c) After discontinuation of operation of the Prairie Island nuclear plant and each year spent nuclear fuel is stored in dry cask at the Prairie Island facility, the commission shall require the public utility to pay \$7,500,000 for any year in which the commission finds, by the preponderance of the evidence, that the public utility did not make a good faith effort to remove the spent nuclear fuel stored at Prairie Island to a permanent or interim storage site out of the state. This determination shall be made at least every two years.

Subd. 2. Renewable energy production incentive. (a) Until January 1, 2018, up to \$6,000,000 annually must be allocated from available funds in the account to fund renewable energy production incentives. \$4,500,000 of this annual amount is for incentives for up to 100 megawatts of electricity generated by wind energy conversion systems that are eligible for the incentives under section 216C.41. The balance of this amount, up to \$1,500,000 annually, may be used for production incentives for on-farm biogas recovery facilities that are eligible for the incentive under section 216C.41 or for production incentives for other renewables, to be provided in the same manner as under section 216C.41. Any portion of the \$6,000,000 not expended in any calendar year for the incentive is available for other spending purposes under this section. This subdivision does not create an obligation to contribute funds to the account.

(b) The Department of Commerce shall determine eligibility of projects under section 216C.41 for the purposes of this subdivision. At least quarterly, the Department of Commerce shall notify the public utility of the name and address of each eligible project owner and the amount due to each project under section 216C.41. The public utility shall make payments within 15 working days after receipt of notification of payments due.

HIST: 1994 c 641 art 1 s 10; 1999 c 200 s 1; 1Sp2003 c 11 art 2 s 1

23. Minnesota Statute 144.12 *Regulation, enforcement, licenses, fees.*

Subdivision 1. Rules. The commissioner may adopt reasonable rules pursuant to chapter 14 for the preservation of the public health. The rules shall not conflict with the charter or ordinance of a city of the first class upon the same subject. The commissioner may control, by rule, by requiring the taking out of licenses or permits, or by other appropriate means, any of the following matters:... (15) Sources of radiation, and the handling, storage, transportation, use and disposal of radioactive isotopes and fissionable materials;...” (Emphasis added)

## II. MINNESOTA REGULATIONS

1. Minnesota Regulation 4410.4300 MANDATORY ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW) CATEGORIES.<sup>1</sup>

Subpart 1. Threshold test. An EAW must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 36, unless the project meets or exceeds any thresholds of part 4410.4400, in which case an EIS must be prepared.

Subp. 2. Nuclear fuels and nuclear waste. Items A to F designate the responsible government unit (RGU) for the type of project listed:

A. For construction or expansion of a facility for the storage of high level nuclear waste, the Minnesota Environmental Quality Board (EQB) shall be the RGU.

B. For construction or expansion of a facility for the storage of low level nuclear waste for one year or longer, the Minnesota Department of Health MDH shall be the RGU.

C. For expansion of a high level nuclear waste disposal site, the EQB shall be the RGU.

D. For expansion of a low level nuclear waste disposal site, the MDH shall be the RGU.

E. For expansion of an away-from-reactor facility for temporary storage of spent nuclear fuel, the EQB shall be the RGU.

F. For construction or expansion of an on-site pool for temporary storage of spent nuclear fuel, the EQB shall be the RGU.

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<sup>1</sup>Minnesota regulations in Chapter 4410 are implemented by the Minnesota Environmental Quality Board (EQB).

2. Minnesota Regulation 4410.4400 MANDATORY ENVIRONMENTAL IMPACT STATEMENT (EIS) CATEGORIES.

Subpart 1. Threshold test. An EIS must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 25. Multiple projects and multiple stages of a single project that are connected actions or phased actions must be considered in total when comparing the project or projects to the thresholds of this part.

Subp. 2. Nuclear fuels and nuclear waste. Items A to D designate the responsible government unit (RGU) for the type of project listed:

A. For the construction or expansion of a nuclear fuel or nuclear waste processing facility, including fuel fabrication facilities, reprocessing plants, and uranium mills, the Minnesota Department of Natural Resources (DNR) shall be the RGU for uranium mills; otherwise, the Minnesota Pollution Control Agency (PCA) shall be the RGU.

B. For construction of a high level nuclear waste disposal site, the Minnesota Environmental Quality Board (EQB) shall be the RGU.

C. For construction of an away-from-reactor facility for temporary storage of spent nuclear fuel, the EQB shall be the RGU.

D. For construction of a low level nuclear waste disposal site, the Minnesota Department of Health (MDH) shall be the RGU.

\* \* \* \* \*

3. Minnesota Regulation 4717.8000 *PURPOSE AND SCOPE*.<sup>2</sup>

Subpart 1. Purpose. The purpose of parts 4717.8000 to 4717.8600 is to establish health risk values (HRVs) and multimedia health risk values (MHRVs) for chemicals or defined mixtures of chemicals emitted to the ambient air.

Subp. 2. Scope. The HRVs and MHRVs established in parts 4717.8000 to 4717.8600 are intended for use by public agencies or private entities in Minnesota as one set of criteria in evaluating risks to human health by chemical emissions to the ambient air. The chemicals and defined mixtures of chemicals included in parts 4717.8000 to 4717.8600 do not include every toxic chemical emitted to air.

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<sup>2</sup>Minnesota regulations in Chapters 4692 through 4750 are implemented by the Minnesota Department of Health (MDH).

The HRVs and MHRVs were not developed for evaluation of workplace exposures. The Occupational Safety and Health Administration, United States Department of Labor, is responsible for regulating workplace exposures.

STAT AUTH: Minnesota Statutes 144.12

4. Minnesota Regulations 4717.8050 *DEFINITIONS*.

Subpart 1. Scope. For the purposes of parts 4717.8000 to 4717.8600, the terms in this part have the meanings given them.

\* \* \* \* \*

Subp. 3. Additional lifetime risk. "Additional lifetime risk" means the probability that daily exposure to a carcinogen over a lifetime may induce cancer. The Minnesota Department of Health uses an additional lifetime risk of 1E-5 (1 in 100,000) to set carcinogen exposure guidelines. (Emphasis added)<sup>3</sup>

\* \* \* \* \*

Subp. 6. Carcinogen. "Carcinogen" means a chemical or defined mixture of chemicals: <sup>4</sup>

A. listed as a human carcinogen or a probable human carcinogen according to "EPA Classification System for Categorizing Weight of Evidence for Carcinogenicity from Human and Animal Studies," The Risk Assessment Guidelines of 1986, United States Environmental Protection Agency, Office of Health and Environmental Assessment (August 1987). The classification system is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

B. listed as "carcinogenic to humans" or "likely to be carcinogenic to humans" according to Proposed Guidelines for Carcinogen Risk Assessment, United States Environmental Protection Agency, Office of Research and Development (July 1999). The guidelines are incorporated by reference, are available through the Minitex interlibrary loan system, and are not subject to frequent change; or

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<sup>3</sup>The June 1996 Minnesota Report on the Siting of a Dry Cask Facility indicated in Part Three, Section V.A., "Radiological Health," that the MDH criterion of 1 per 100,000 carcinogenic risk was applied to the Prairie Island ISFSI and resulted in the 0.054 mrem per year dose limit.

<sup>4</sup>According to EPA report, "Risk Assessment Methodology, Environmental Impact Statement for NESHAPS Radionuclides," the Clean Air Act was amended in 1977 to address emissions of radioactive materials. The report provided that the NRC must assure that no member of the public would receive a dose greater than 0.5 rem/yr to comply with the EPA national emission standards for radionuclides. Staff notes that the NRC standard of 25mrem per year for ISFSIs is well within EPA's guidelines.

C. listed as a substance known to be a human carcinogen or reasonably anticipated to be a human carcinogen in the Report on Carcinogens, United States Department of Health and Human Services, Public Health Service, National Toxicology Program. The report is incorporated by reference and is subject to frequent change. The report is available on the Internet at <http://ntp-server.niehs.nih.gov/newhomeroc/aboutroc.html>.

\* \* \* \* \*

STAT AUTH: Minnesota Statutes 144.12

5. Minnesota Regulation 7849.0320 GENERATING FACILITIES.<sup>5</sup>

The applicant shall provide the following information for each alternative that would involve construction of an Large electric generating facility (LEGF).<sup>6</sup>

\* \* \* \* \*

G. radioactive releases, including:

- (1) for nuclear facilities, the typical types and amounts of radionuclides released by the facility in curies per year for alternate facility designs and levels of waste treatment; and
- (2) for fossil-fueled facilities, the estimated range of radioactivity released by the facility in curies per year;

\* \* \* \* \*

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

6. Minnesota Regulation 7855.0010 *DEFINITIONS*.

\* \* \* \* \*

Subp. 23. Nuclear fuel processing facility. "Nuclear fuel processing facility" means any facility designed for or capable of processing or reprocessing any material for use as a fuel in a nuclear reactor. A nuclear fuel processing facility shall include any radioactive or nonradioactive waste storage or disposal facility on the site needed for operation of the facility at the design capacity.

Subp. 24. Nuclear waste storage or disposal facility. "Nuclear waste storage or disposal facility" means any facility designed for or capable of serving as a temporary or permanent depository for radioactive or associated nonradioactive wastes produced by a nuclear reactor or a nuclear fuel processing facility, including any burial ground for low-level radioactive wastes.

\* \* \* \* \*

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<sup>5</sup>Minnesota regulations in Chapters 7810 through 7855 are implemented by the Minnesota Public Utilities Commission (PUC).

<sup>6</sup>The definition of LEGF's in Minnesota Statute 216B.2421 includes nuclear fuel processing facilities, nuclear waste storage facilities or disposal facilities.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

7. Minnesota Regulation 7855.0020 *PURPOSE*.

The purpose of this chapter is to specify the contents of applications for certificates of need and to specify criteria for assessment of need, pursuant to Minnesota Statutes, section 216B.243, for fuel conversion facilities, coal slurry or coal liquids pipelines, nuclear fuel processing facilities, and nuclear waste storage or disposal facilities. (Emphasis added)

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

8. Minnesota Regulation 7855.0030 *SCOPE OF RULES*.

Subpart 1. Facilities subject to rules. Each person applying for a certificate of need to construct one of the following types of large energy facilities pursuant to this chapter shall provide all information required by this chapter:

\* \* \* \* \*

F. a new nuclear fuel processing facility;

G. expansion of an existing nuclear fuel processing facility by at least 20 percent of the base capacity of the facility;

H. a new nuclear waste storage or disposal facility; and

I. expansion of an existing nuclear waste storage or disposal facility by at least 20 percent of the base capacity of the facility.

Subp. 2. Exceptions. The following types of facilities shall not be subject to this chapter:

A. any large energy facility on which construction has begun or has been completed by November 14, 1978;

B. any nuclear waste storage or disposal facility to be constructed in conjunction with a large generating facility that itself requires a certificate of need, unless the total capacity of that storage facility is not covered by the certificate of need issued for the large electric generating facility and associated facilities; and

\* \* \* \* \*

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

9. Minnesota Regulation 7855.0220 *CONTENTS OF APPLICATION*.

Subpart 1. Information required. An application for a certificate of need shall provide all information required by parts 7855.0230 to 7855.0270 and, optionally, part 7855.0280.

An application shall also provide information for specific types of facilities as indicated:

\* \* \* \* \*

C. An applicant for a nuclear fuel processing facility shall refer to parts 7855.0500 to 7855.0570 for the additional information required.

D. An applicant for a nuclear waste storage or disposal facility shall refer to parts 7855.0600 to 7855.0670 for additional information required.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

10. Minnesota Regulation 7855.0520 *HISTORICAL AND FORECAST DATA.*

Each applicant for a nuclear fuel processing facility shall provide five years of historical data, as well as a forecast of demand through the forecast years. The following information shall be included:

- A. the amount of each input material, in tons per year, produced nationally and the amount produced within Minnesota during each of the last five calendar years preceding the year of application;
- B. for each of the last five calendar years preceding the year of application, the year-end capacity within Minnesota and within the United States, in tons of input material per year, to process the materials listed in item A;
- C. an estimate of the amount of each input material expected to be produced nationally (including, if applicable, spent fuel from foreign reactors that use uranium supplied by the United States) and within Minnesota during the first six forecast years, the 11th forecast year (the tenth year after the year of application), and the 16th forecast year;
- D. a discussion of the methodology, statistical techniques, and data bases used in providing the forecast data required by item C;
- E. a list of known facilities to be added in the United States during the forecast years, including locations, in-service dates, and design capacities, for processing the same types of materials that would be processed by the proposed facility; and
- F. any major assumptions made in supplying the information required by items A to D, and a discussion of the sensitivity of the information to changes in the assumptions.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

11. Minnesota Regulation 7855.0500 *PROPOSED NUCLEAR FUEL PROCESSING FACILITY; DESCRIPTION.*

Each application for a nuclear fuel processing facility shall contain the following information:

- A. a physical description of the facility, including:
  - (1) its location, to the fullest extent known;
  - (2) the required land area, the height of the tallest structures, and, if applicable, the depth and size of any underground caverns;
  - (3) its design capacity in tons per year of input material; and
  - (4) a schematic drawing showing major components of the facility;
- B. data regarding design and construction of the facility, including:
  - (1) if known, the complete name and business address of the engineer and firm that would be responsible for the design of the facility;
  - (2) if known, the complete name and business address of the company which would construct the facility;

- (3) the proposed date for commencing construction and the proposed in-service date;
- (4) the estimated installed cost of the facility in current dollars; and
- (5) the estimated economic life of the facility;

C. data regarding operation of the facility, including:

- (1) a narrative description of the steps of the process;
- (2) the sources and amounts of input materials that would be processed by the facility during operation at the design capacity, including uranium, plutonium, and structural metals in tons per year and fission product nuclides in curies per year;
- (3) the types and amounts of output materials from the processing facility during operation at the design capacity;
- (4) the projected annual operating and maintenance costs in current dollars for each of the first five calendar years of operation;
- (5) the methods that would be used to transport materials to and from the facility;
- (6) the projected types and amounts of energy products that would be consumed during operation at the design capacity;
- (7) the expected average percentage of use of the full design capacity for each of the first five calendar years of operation; and
- (8) a discussion of the maintenance requirements of the facility, including the estimated impact on production.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

12. Minnesota Regulation 7855.0510 *ALTERNATIVES*.

Each application for a nuclear fuel processing facility shall contain a description of alternatives available to the applicant that differ significantly from the proposed facility with respect to location, size, timing, or design. The description of each alternative shall include the following information, if applicable:

- A. the location of the facility, to the fullest extent known;
- B. the required land area, the height of the tallest structures, and if applicable, the depth and size of any underground caverns;
- C. its design capacity in the appropriate units of measure;
- D. a schematic drawing showing major components of the facility;
- E. the probable date for commencing construction and the probable in-service date;
- F. the estimated installed cost of the alternative in current dollars;
- G. the estimated economic life of the facility;
- H. the sources and amounts of input materials that would be processed by the facility, including uranium, plutonium, structural metals, and fission products, and the products that would be produced;
- I. the projected annual operating and maintenance costs in current dollars for each of the first five calendar years of operation;
- J. the methods that would be used to transport materials to and from the facility;
- K. the projected types and amounts of energy products that would be consumed during operation at the design capacity;
- L. the estimated average percentage of use of the full design capacity for each of the

- first five years of operation;
- M. a discussion of the maintenance requirements of the facility, including the estimated impact on production; and
- N. the reasons why the alternative was rejected.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

13. 7855.0550 *WASTES AND EMISSIONS*.

The applicant shall provide data on wastes and emissions associated with construction or operation of the facility, including:

- A. the types and estimated amounts of solid, liquid, and gaseous radioactive wastes that would be produced by the facility, and the level of radioactivity of each in curies per year;
- B. an analysis of human exposure to ionizing radiation attributable to operation of the facility, taking account of the pathways of radioactive releases to humans;
- C. the types and estimated amounts of nonradioactive solid and liquid wastes that would be produced;
- D. the types and estimated amounts of nonradioactive gaseous and particulate emissions into the air that would occur during full operation from each emission source, and the location and nature of the release point;
- E. locations that may be sources of fugitive dust and the nature of each source;
- F. the nature and estimated amount of nonradioactive discharges to water, and the locations, routes, and final receiving waters for any discharge points;
- G. any area from which runoff may occur, potential sources of contamination in the area, and receiving waters for any runoff;
- H. the sources and estimated amounts of heat rejected by the facility; and
- I. the maximum noise levels (in decibels, A scale) expected at the property boundary and the expected maximum increase over ambient noise levels. (Emphasis added)

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

14. Minnesota Regulation 7855.0560 *POLLUTION CONTROL AND SAFEGUARDS EQUIPMENT*.

The applicant shall provide data regarding pollution control and safeguards equipment, including:

- A. the provisions that would be made for management of radioactive materials; (Emphasis added)
- B. a description of contingency plans to reduce the effects of an accidental release to radioactive materials; (Emphasis added)
- C. the methods that would be used to recycle or dispose of solid or liquid wastes;
- D. the types of emission control devices and dust control measures that would be used;
- E. the types of water pollution control equipment and runoff control measures that would be used;
- F. the measures that would be taken to prevent spills or leaks of pollutants, or to

- minimize the effects of spills or leaks on the environment;
- G. the methods that would be used to reduce the effects of heat rejected by the facility;
- H. any other equipment or measures, including noise control or erosion control, that would be used to reduce the effects of the facility on the environment; and
- I. the types of environmental monitoring, if any, that are planned for the facility and a description of any relevant environmental monitoring data already collected.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

15. Minnesota Regulation 7855.0600 *NUCLEAR WASTE, DISPOSAL FACILITY; DESCRIPTION.*

Each application for a nuclear waste storage or disposal facility shall contain the following information:

- A. a physical description of the facility, including:
  - (1) its location, to the fullest extent known;
  - (2) the required land area, the height of the tallest structures, and if applicable, the depth and size of any underground caverns;
  - (3) its design capacity in cubic meters; and
  - (4) a schematic drawing showing major components of the facility;
- B. data regarding design and construction of the facility, including:
  - (1) if known, the complete name and business address of the engineer and firm that would be responsible for the design of the facility;
  - (2) if known, the complete name and business address of the company which would construct the facility;
  - (3) the proposed date for commencing construction and the proposed in-service date;
  - (4) a description of the construction techniques;
  - (5) the estimated installed cost of the facility in current dollars; and
  - (6) the estimated economic life of the facility; and
- C. data regarding operation and retirement of the facility, including:
  - (1) a narrative description of the steps of the storage or disposal process, starting at the point the nuclear wastes are produced;
  - (2) the sources, types, and amounts of nuclear waste products that would be stored, the methods of transporting these materials to the facility, and the level of radioactivity of each in curies per year;
  - (3) if the facility is only for temporary storage, the length of time material would be stored there and the method of transporting the material to its disposal site; and
  - (4) the expected maintenance requirements of the facility, if any.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

16 Minnesota Regulation 7855.0610 *ALTERNATIVES.*

Each application for a nuclear waste storage or disposal facility shall contain a description of alternatives available to the applicant that differ significantly from the proposed facility with respect to location, size, timing, or design. The description of each alternative shall include the

following information, if applicable:

- A. the location of the facility, to the fullest extent known;
- B. the required land area, the height of the tallest structures, and if applicable, the depth and size of any underground caverns;
- C. its design capacity in the appropriate units of measure;
- D. a schematic drawing showing major components of the facility;
- E. the probable date for commencing construction and the probable in-service date;
- F. the estimated installed cost of the alternative in current dollars;
- G. the sources, types, and amounts of nuclear waste products that would be involved in the alternative, the methods of transporting these materials, and the level of radioactivity of each in curies per year;
- H. the estimated maintenance requirements of the alternative;
- I. the estimated economic life of the facilities involved in the alternative; and
- J. the reasons why the alternative was rejected.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

17. Minnesota Regulation 7855.0620 *HISTORICAL AND FORECAST DATA*.

Each applicant for a nuclear waste storage or disposal facility shall provide five years of historical data, as well as a forecast of demand through the forecast years. The following information shall be included:

- A. for each material that would be stored in the proposed facility, the amount (in cubic meters) produced nationally and within Minnesota during each of the last five calendar years preceding the year of application;
- B. for each of the last five calendar years preceding the year of application, the year-end capacity (in cubic meters) within Minnesota and within the United States to store the materials listed in response to item A;
- C. an estimate of the amount (in cubic meters) of each material listed in response to item A expected to be produced nationally and within Minnesota during the first six forecast years, the 11th forecast year (the tenth year after the year of application), and the 16th forecast year;
- D. a list of known facilities to be added in the United States during the forecast years, including locations, design capacities (in cubic meters), and in-service dates, for storing the same types of materials that would be stored in the proposed facility;
- E. the expected years during which the material stored in the proposed facility would reach ten percent, 25 percent, 50 percent, and 100 percent of the capacity of the facility;
- F. a discussion of the methodology, statistical techniques, and data bases used in providing the forecast data required by items C and E; and
- G. any major assumptions made in supplying the information required by items A to E, and a discussion of the sensitivity of the information to changes in the assumptions.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

18. Minnesota Regulation 7855.0650 *WASTES AND EMISSIONS*.

The applicant shall provide data on wastes and emissions associated with construction or operation of the facility, including:

- A. the types and estimated amounts of solid, liquid, and gaseous radioactive wastes that would be produced by the facility, and the level of radioactivity of each in curies per year;
- B. an analysis of human exposure to ionizing radiation attributable to operation of the facility, taking account of the pathways of radioactive releases to humans;
- C. the types and estimated amounts of nonradioactive solid and liquid wastes that would be produced;
- D. the types and estimated amounts of nonradioactive gaseous and particulate emissions into the air that would occur during full operation from each emission source, and the location and nature of the release point;
- E. locations that may be sources of fugitive dust and the nature of each source;
- F. the nature and estimated amount of nonradioactive discharges to water, and the locations, routes, and final receiving waters for any discharge points;
- G. any area from which runoff may occur, potential sources of contamination in the area, and receiving waters for any runoff;
- H. the sources and estimated amounts of heat rejected by the facility; and
- I. the maximum noise levels (in decibels, A scale) expected at the property boundary and the expected maximum increase over ambient noise levels.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

19. Minnesota Regulation 7855.0660 *POLLUTION CONTROL AND SAFEGUARDS EQUIPMENT*.

The applicant shall provide data regarding pollution control and safeguards equipment, including:

- A. the provisions that would be made for management of radioactive materials;
- B. a description of contingency plans to reduce the effects of an accidental release of radioactive materials;
- C. the methods that would be used to recycle or dispose of solid or liquid wastes;
- D. the types of emission control devices and dust control measures that would be used;
- E. the types of water pollution control equipment and runoff control measures that would be used;
- F. the measures that would be taken to prevent spills or leaks of pollutants, or to minimize the effects of spills or leaks on the environment;
- G. the methods that would be used to reduce the effects of heat rejected by the facility;
- H. any other equipment or measures, including noise control or erosion control, that would be used to reduce the effects of the facility on the environment; and
- I. the types of environmental monitoring, if any, that are planned for the facility and a description of any relevant environmental monitoring data already collected.

STAT AUTH: Minnesota Statutes 216B.08; 216B.2421; 216B.243; 216C.10

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7011.9970 RADIONUCLIDES.

The following National Emissions Standards for Hazardous Air Pollutants are adopted and incorporated by reference:

A. Code of Federal Regulations, title 40, part 61, subpart H, as amended, entitled "National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities."

B. Code of Federal Regulations, title 40, part 61, subpart I, as amended, entitled "National Emission Standards for Radionuclide Emissions From Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities Not Covered by Subpart H."

C. Code of Federal Regulations, title 40, part 61, subpart K, as amended, entitled "National Emission Standards for Radionuclide Emissions from Elemental Phosphorus Plants."