July 26, 1985

Docket Nos. 50-282
and 50-306

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Mr. D. M. Musolf
Nuclear Support Services Department
Northern States Power Company
414 Nicollet Mall - 8th Floor
Minneapolis, Minnesota 55401

Dear Mr. Musolf:

On June 26, 1985, the Commission issued Amendment Nos. 74 and 67 to Facility Operating License Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2, in response to your application dated December 21, 1984 as revised March 14, 1985. The amendments permitted use of the spent fuel shipping cask over spent fuel pool No. 1.

Page TS.5.6-1 of the Technical Specifications contained a clerical error in that the third paragraph under 5.6A referred to minimum instead of maximum K_{eff} in the second sentence. A corrected page TS.5.6-1 is provided herewith.

Please accept our apologies for any inconvenience this error may have caused.

Sincerely,

Dominic C. Di Ianni, Project Manager
Operating Reactors Branch No. 3
Division of Licensing

Enclosure:
TS page TS.5.6-1

cc w/enclosure:
See next page

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5.6 FUEL HANDLING

A. Criticality Consideration

The new and spent fuel pit structures are designed to withstand the anticipated earthquake loadings as Class I (seismic) structures. The spent fuel pit has a stainless steel liner to ensure against loss of water.(1)

The new and spent fuel storage racks are designed so that it is impossible to insert assemblies in other than the prescribed locations. The fuel is stored vertically in an array with the center-to-center distance between assemblies sufficient to assure $K_{eff} \leq 0.95$ even if unborated water were used to fill the pit. In addition, fuel in the storage pool shall have a U-235 loading of $\leq$ 39.0 grams of U-235 per axial centimeter of fuel assembly (average).

The criticality considerations as they relate to the dropping of a spent fuel cask (i.e., heavy load) drop onto the racks has been evaluated. The maximum K_{eff} has been calculated to be 0.949 at a water/UO_2 ratio of a 2.0 with a boron concentration of 1800 ppm.

B. Spent Fuel Storage Structure

The spent fuel storage pool is enclosed with a reinforced concrete building having 12- to 18-inch thick walls and roof.(1) The pool and pool enclosure are Class I (seismic) structures that afford protection against loss of integrity from postulated tornado missiles. The storage compartments and the fuel transfer canal are connected by fuel transfer slots that can be closed off with pneumatically sealed gates. The bottoms of the slots are above the tops of the active fuel in the fuel assemblies which will be stored vertically in specially constructed racks.

The spent fuel pool has a reinforced concrete bottom slab nearly 6 feet thick and has been designed to minimize loss of water due to a dropped cask accident. In addition, the spent fuel cask will have an impact limiter attached or a crash pad will be in place in the pool which will have the capability to absorb energy of impact due to a cask drop. This will result in no structural damage taking place to the pool which would result in significant leakage from the pool. Piping to the pool is arranged so that failure of any pipe cannot drain the pool below the tops of the stored fuel assemblies.

C. Fuel Handling

The fuel handling system provides the means of transporting and handling fuel from the time it reaches the plant in an unirradiated condition until it leaves after post-irradiation cooling. The system consists of the refueling cavity, the fuel transfer system, the spent fuel storage pit, and the spent fuel cask transfer system.