ATTACHMENT 1

PROPOSED CHANGE TO

DPR-19

Revised Page Change: 5-1

9068N

5.0 DESIGN FEATURES

5.1 Site

Dresden Unit 2 is located at the Dresden Nuclear Power Station which consists of a tract of land of approximately 953 acres located in the northeast quarter of the Morris 15-minute quadrangle (as designated by the United States Geological Survey), Goose Lake Township, Grudy County, Illinois. The tract is situated in portions of Sections 25, 26, 27, 34, 35, and 36 of Township 34 North, Range 8 East of the Third Principal Meridian.

5.2 Reactor

A. The core shall consist of not more than 724 fuel assemblies

B. The reactor core shall contain 177 cruciform-shaped control rods. The control material shall be boron carbide powder (B_4C) compacted to approximately 70% of theoretical density, or Hafnium metal.

5.3 Reactor Vessel

The reactor vessel shall be as described in Table 4.1.1 of the SAR. The applicable design codes shall be as described in Table 4.1.1 of the SAR.

5.4 Containment

A. The principal design parameters and applicable design codes for the primary containment shall be as given in Table 5.2.1 of the SAR.

B. The secondary containment shall be as described in Section 5.3.2 of the SAR and the applicable codes shall be as described in Section 12.1.1.3 of the SAR.

C. Penetrations to the primary containment and piping passing through such penetrations shall be designed in accordance with standards set forth in Section 5.2.2 of the SAR and the applicable codes shall be as described in Section 12.1.1.3 of the SAR.

5.5 Fuel Storage

A. The new fuel storage facility shall be such that the K_{eff} dry is less than 0.90 and flooded is less than 0.95.

B. The K_{eff} of the spent fuel storage pool shall be less than or equal to 0.95.

ATTACHMENT 2

PROPOSED CHANGE TO

DPR-29 & 30

Revised Page Change: 5.0-1

9068N

5.0 DESIGN FEATURES

5.1 Site

The Quad Cities Station, which consists of a tract of land of approximately 404 acres, is located about 3 miles north of Cordova, Illinois, Rock Island County, Illinois. The tract is situated in portions of Sections 7, 8, 17, and 18 of Township 20 North, Range 2 East.

5.2 Reactor

A. The core shall consist of not more than 724 fuel assemblies.

B. The reactor core shall contain 177 cruciform-shaped control rods. The control material shall be boron carbide powder (B_4C) compacted to approximately 70% of theoretical density or hafnium metal.

5.3 Reactor Vessel

The reactor vessel shall be as described in Table 4.1.1 of the SAR. The applicable design codes shall be as described in Table 4.1.1 of the SAR.

5.4 Containment

A. The principal design parameters and applicable design codes for the primary containment shall be as given in Table 5.2.1 of the SAR.

B. The secondary containment shall be as described in Section 5.3.2 of the SAR, and the applicable codes shall be as described in Section 12.1.1.3 of the SAR.

C. Penetrations to the primary containment and piping passing through such penetrations shall be designed in accordance with standards set forth in Section 5.2.2 of the SAR.

5.5 Fuel Storage

A. The new fuel storage facility shall be such that the K_{eff} dry is less than 0.90 and flooded is less than 0.95.

B. The K_{eff} of the spent fuel storage pool shall be less than or equal to 0.95.

5.6 Seismic Design

The reactor building and all contained engineered safeguards are designed for the maximum credible earthquake ground motion with an acceleration of 24% of gravity. Dynamic analysis was used to determine the earthquake acceleration application to the various elevations in the reactor building.

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ATTACHMENT 3

Significant Hazards Consideration

Use of Hafnium in Control Rod Blades

Commonwealth Edison proposes to amend Operating Licenses DPR-19, 29 and 30 to allow the use of hafnium metal as a neutron absorber material. The proposed Technical Specification changes do not represent significant changes in acceptance criteria or safety margins and all changes have been previously accepted by the NRC for other similar units, including Dresden 3.

Previous control blades used at Quad Cities and Dresden Unit 2 utilized boron carbide as the absorber material. The use of hafnium in place of, or in addition to, boron is desired to provide comparable neutron absorption characteristics while eliminating or reducing the production of helium gas. This will reduce the source of internal pressure in the control blade structure, thereby reducing material stresses and the likelihood of stress corrosion cracking. The reactivity of the hafnium-bearing control rods is sufficiently matched to ensure that their safety function (scram reactivity) is not reduced or compromised, nor will the probabilities or consequences of previously evaluated accidents be increased.

Based on the preceding discussion and review of similar approved changes at another Commonwealth Edison unit, we concluded that the proposed amendments will not (1) involve a significant increase in the probability of occurrence of an accident previously evaluated; or (2) create the possibility for a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in the margin of safety. Therefore, based on the criteria established in 10CFR50.92, the proposed changes do not constitute a significant hazards consideration.

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