Regulatory File Cy.

Commonwealth Edison Company

ONE FIRST NATIONAL PLAZA ★ CHICAGO, ILLINOIS

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WPW Ltr.#292-73

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
April 13, 1973

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Mr. A. Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

SUBJECT: LICENSE DPR-19-25, DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, SECTION 6.6.B.3 OF THE TECHNICAL SPECIFICATIONS.

Dear Mr. Giambusso:

This is to report a condition relating to the operation of the station in which on April 4, 1973, the Radwaste Waste Surge Tank was found to contain 1.05 curies of radioactivity which exceeds the Technical Specification limit as stated in Section 3.8.D.

PROBLEM AND INVESTIGATION

On April 2, 1973 at 1115 processing of the Waste Collector Tank water to "B" Waste Sample Tank was initiated through "B" Waste Filter and the Radwaste Demineralizer. At 2130 on April 2, 1973, this transfer was completed. Results from a sample taken from the Waste Collector Tank at 0100 on April 3, 1973 indicated a $\beta\gamma$ radioactivity concentration of 1.3×10^7 picocuries per liter and a conductivity of 330 micromhos per square centimeter. On April 3, 1973 at 0245, a sample taken from "B" Waste Sample Tank indicated a radioactivity concentration of 5.4×10^4 picocuries per liter and a conductivity of 1.6 micromhos per square centimeter. The water level in "B" Waste Sample Tank at this time was 43 percent which corresponds to a radioactivity concentration of 0.003 curies. Further improvement in the conductivity of the water in this tank was desired and additional demineralization was planned prior to transferring this batch to a condensate storage tank.

On April 3, 1973 at 1040 due to the 330 micromho water in the Waste Collector Tank and the possibility of a slightly depleted Radwaste demineralizer bed, water was again processed from the Waste Collector Tank through "B" Waste Filter and the Radwaste demineralizer to "B" Waste Sample Tank. This transfer was initiated to lower the Waste Collector water conductivity to a point where it could be subsequently processed through a new demineralizer bed for final polishing prior to transfer to condensate storage. This transfer was completed at 1740 on April 3, 1973 when "B" Waste Sample Tank level reached 91%.

Due to the initial activity of the Waste Collector Tank and the expected decontamination factor of the filter and demineralizer, the last portion of water transferred from the Waste Collector Tank is not considered to have caused the subsequent tank activity problem.

At 1740 on April 3, 1973 "B" Waste Sample Tank water was transferred to the Waste Surge Tank for temporary storage until a new radwaste demineralizer bed could be obtained. In addition, the Waste Surge Tank was also placed on recirculation for a sample at this time. Results of this sample which were completed at 0115 on April 4, 1973, indicated a $\beta\,\gamma$ radioactivity concentration of 1.0×10^7 picocuries per liter and a conductivity of 3.15 micromhos per square centimeter. A radioactivity concentration of 1.0×10^7 picocuries per liter and a volume of 36% in the Waste Surge Tank corresponds to 1.05 curies.

Initial action which was undertaken to reduce the radioactivity in this tank consisted of replacing the radwaste demineralizer bed. Processing of the Waste Surge Tank water through "B" Waste Filter and the Radwaste Demineralizer to "B" Waste Sample Tank was begun at 1830 on April 4. At 2146 on April 4, "B" Waste Sample Tank was placed on recirculation for a sample. Results of this sample, which was collected at 2245 following recirculation, indicated a radioactivity concentration of 6.2×10^4 picocuries per liter and a tank curie content of 0.007 curies.

The source of the 1.05 curies of radioactivity in the Waste Surge Tank water was determined not to have been "B" Waste Sample Tank water since this water had been demineralized and the ion exchange capacity of the demineralizer was not depleted. This conclusion was supported by two additional factors; the reduction in the conductivity of the water which was processed from the Waste Collector Tank to the Waste Surge Tank and from the decontamination factor of the water transferred from the Waste Collector Tank to "B" Waste Sample Tank.

Inspection of the Waste Surge Tank revealed that sedimentation had occurred in the tank. Some of this radioactive sediment was placed in suspension when the Waste Surge Tank was put on recirculation for sampling. This caused the radioactivity of the water in the tank to increase.

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The presence of 1.05 curies of radioactivity in the water in the above ground tank did not represent a hazard to the public since the contents of the tank were not released to the river and the tank radioactivity was reduced to less than Technical Specification limits within 18 hours following collection and analysis of the sample. If a failure of the Waste Surge Tank as described in Amendment #9, Section V.C.1 of the S.A.R. had occurred and if the radioactivity contained in the tank had been released to the aquadic environment, the limits specified in 10 CFR 20.106 would not have been exceeded when averaged over one year.

CORRECTIVE ACTION

The Waste Surge Tank will be drained to remove any remaining sedimentation. If this effort is not successful, the Waste Surge Tank will be opened and manually cleaned.

Additionally, a program for cleaning the above ground tanks will be formulated by May 31, 1973.

Sincerely,

Fred L. Morris

W. P. Worden
Superintendent

WPW:do

cc: WPW Ltr. File

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