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USAEC

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

Dresden Nuclear Power Station R. R. #1
Morris, IL 60450

July 17, 1973

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

High Activity in Above Ground Floor Drain Sample Tank B

References: 1. Notification of Region III of AEC Regulatory Operations

Telephone: H. Dance 1600% hrs. 7/9/73 Telegram: B. Grier 1620 hrs. 7/9/73

2. Dwgs: P & ID M-44

Dear Mr. Giambusso:

This letter is to report a condition relating to the operation of Unit 2/3 Radwaste at about 0650 hours on July 9, 1973. At this time an above ground tank ("B" Floor Drain Sample Tank) was found to contain 1.04 curies. This radioactivity level is contrary to section 3.8.D of the Unit 2/3 Technical Specifications which require that the radioactivity in any above ground tank not exceed 0.7 curies.

The review of this problem subsequent to the initial reports (reference 1) established that the contents of this tank were reprocessed within 5 hours. The Technical Specifications (section 3.8.D) allow 24 hours in which to accomplish this reprocessing. Therefore, a limiting condition for operation was not exceeded and consequently this problem is not reportable. However, in order to complete the reporting sequence already begun by our telephone call (reference 1), this letter is being submitted. Similar incidents were reported to you on March 29 and April 13, 1973. These incidents were likewise not reportable.

## PROBLEM

At 0650 hours on July 9, 1973, the processing of water to "B" Floor Drain Sample Tank from the Floor Drain Collector was completed and the "B" Floor Drain Sample Tank was placed on recirculation for sampling.

The sample results received at 0945 hours indicated a beta-gamma radio-activity in the tank of  $1.3 \times 10^7 \text{pCi/l}$ . This concentration combined with a tank level of 96% full resulted in a total radioactivity content of 1.04 curies in the "B" Floor Drain Sample Tank.

In order to reduce the radioactivity of the water in the "B" Floor Drain Sample Tank, the water was reprocessed as follows. At 1005 hours on July 9, 1973 the "B" Floor Drain Sample Tank water was transferred to the "B" Neutralizer Tank (underground) for temporary storage while the Floor Drain Filter was backwashed and precoated. Then the water in the "B" Neutralizer Tank was refiltered through the Floor Drain Filter back to the "B" Floor Drain Sample Tank. At 1452 hours, when filtering was completed, the "B" Floor Drain Sample Tank was placed on recirculation for sampling. The sample results indicated a beta-gamma radioactivity of 4.8x10<sup>6</sup>pCi/l, with a tank volume of 73%. This resulted in a radioactivity content of .29 curies.in the tank. This result is within Technical Specifications limits.

## INVESTIGATION

The analysis of the "B" Floor Drain Sample Tank water (0650) showed a turbidity of 340 APHA units.

The average value after similar filter runs in June was 166 APHA units. The filter run which filled the "B" Floor Drain Sample Tank at 0650 hours was obviously an inefficient run. The performance of this DeLaval filter has been marginal. An investigation of the filter performance has been underway for some months and is continuing. However, at this time, no clear reason for this marginal performance is evident.

A review of procedures applicable to the Floor Drain Filter operations was made. Adequate procedures for the operation of the filters do exist. In addition, a procedure designed to minimize the possibility of processing high activity water to above ground tanks is in effect. It appears that this procedure was not followed correctly in that the Floor Drain Collector was not sampled and analyzed prior to being processed. Had this sample been taken, a different plan for processing this water probably would have been employed. The omission of the Floor Drain Collector analysis was the result of the operators not having a clear understanding of the steps in this procedure. The operators did follow the procedures correctly as they understood them. There was no operating error made to their knowledge at the time.

## CORRECTIVE ACTION

In addition to the immediate corrective action of reprocessing the "B" Floor Drain Sample Tank water through a freshly backwashed and precoated filter, the operating procedure which requires the beta-gamma radioactivity analysis of the Fhoor Drain Collector water prior to processing will be reviewed with the appropriate operating personnel. The investigation of the filter performance is continuing. A filter manufacturer representative was called in recently for consultation.

## **EVALUATION**

The presence of 1.04 curies in the "B" Floor Drain Sample Tank did not produce a hazard to the public since the water was not released to the river and the tank beta-gamma radioactivity was reduced to less than Technical Specifications Requirements within 5 hours from the time the "B" Floor Drain Sample Tank was filled (0650 hrs.). If a failure (as described in Amendment #9, section V.C.1 of the S.A.R.) had occurred, and the radioactive water in the tank had been released to the aquatic environment, the limits as specified in 10CFR20.106 would not have been exceeded when averaged over one year.

The immediate corrective actions were appropriate and corrected the problem in a timely manner. These actions will also reduce the probability of future problems similar to this. There are no safety implications to the continued operation of Radwaste and the units.

Sincerely,

Fred & Morris for W. P. Worden Superintendent

WPW:slb

cc: Rille/AEC Corr. Cat I