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June 11, 1984
EF2-69278

Mr. James G. Keppler
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reference: Fermi 2
NRC Docket No. 50-341

Subject: Final Report of 10CFR50.55(e) Item 127
"Debris in RHR Service Water Reservoir"

On May 9, 1984, Detroit Edison's Mr. L. P. Bregni, Engineer-Licensing, telephoned Mr. F. Jablonski of the NRC Region III to report a potential deficiency concerning debris in the Residual Heat Removal (RHR) service water reservoir. Debris was found in both the Division I and Division II reservoirs.

Description of Deficiency

While conducting the Ell-51 preoperational test, several bits of debris were observed in the RHR service water reservoirs. The Division I and Division II reservoirs were then drained and cleaned. The most likely source of this debris was from craft working on the roof of the RHR complex.

The debris removed from the Division I reservoir was about one cubic foot in volume and was composed of nails, small pieces of wire, one piece of garden hose 1 ft. long, a sheet of plastic 1 ft. square, a scaffolding screw jack, small bits of wood, a soda can, and several small pieces of paper.

The debris removed from Division II was similar in nature and consisted of nails, wire, bits of wood, one long piece of wood (3' x 1/2" x 3") and plastic sandwich bags. A piece of cloth was found in the suction of RHR service water pump D.

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Analysis of Safety Implications

The items found in the reservoirs were, for the most part, too heavy to be pulled into the suction of the pump. However, the plastic bags, candy wrappers, water soaked wood, or plastic sheeting could be pulled into the pump suction and reduce flow. Additionally, material passing through the pump could obstruct flow through one of the heat exchangers in the system.

Although considered unlikely, debris in both Division I and Division II RHR service water systems could result in the loss of or reduction of flow to the ultimate heat sink. This heat sink is also required for the operation of the emergency diesel generator.

Corrective Action

The Division I and Division II reservoirs were drained and cleaned using craft workers with Startup, SCO and Nuclear Quality Assurance witnessing the results. Upon successful completion of the post-cleaning inspection, the temporary exterior stairway to the roof of the RHR complex was removed. This temporary stairway had been used to allow construction personnel access to the roof. However, this practice bypassed the normal access control. Removing the stairway results in construction personnel having to access the complex through the normal control points.

After refilling the reservoir, the systems have been operated with no indication of problems associated with foreign objects in the pumps, valves or heat exchangers.

To prevent recurrence, construction management personnel have been directed to strictly enforce Project Procedure 7.27 "Project Housekeeping". As part of this strict enforcement, the following practices were instituted at the RHR complex prior to refilling the reservoirs:

- (1) Craft personnel working on the RHR roof are to enter through the security doors of the RHR complex.
- (2) Lunches, etc., are not permitted on the roof.
- (3) Water containers and cups are not permitted on the roof.

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- (4) When erecting or removing scaffolding, appropriate measures are to be taken to prevent wire, nails, wood, or other materials from dropping through the grating into the reservoir.

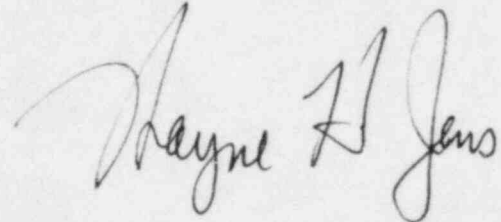
In addition to the above, the two laborers permanently assigned to the RHR complex, were instructed to maintain cleanliness on the roof as well as inside the building.

Effective implementation of the above should prevent foreign material from entering the RHR service water reservoirs.

Upon turnover of the RHR complex to Nuclear Production from the Project Completion Organization, or shortly thereafter, the RHR Division I and II reservoirs will be drained and inspected for debris. At the same time, responsibility for housekeeping and cleanliness control will transfer to Nuclear Production.

This is Detroit Edison's final report on this subject. If you have questions concerning this matter, please contact Mr. Lewis P. Bregni, (313) 586-5083.

Sincerely,



cc: Mr. P. M. Byron
Mr. R. C. DeYoung
Mr. R. C. Knop