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SENIOR VICE PRESIDENT
NUCLEAR

December 20, 1983
BECo 83-297

Mr. John G. Davis, Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

License No. DPR-35
Docket No. 50-293

Dear Sir:

The purpose of this letter is to apprise you of our proposed methods of implementing the new requirements of 10 CFR Part 61 which become effective December 27, 1983. Through various discussions and meetings with Mr. L. Higginbotham, Chief Low-Level Waste Licensing Branch and the Utility Nuclear Waste Management Group of which Boston Edison Company is a member, we understand that the NRC is currently in the process of preparing Regulatory Guides to provide acceptable methods of compliance for this rule. It is also understood that in the interim, utilities should submit for review, their intended methods of implementation to ensure a common understanding and interpretation with the NRC staff. Since most of our present practices are already in conformance with 10 CFR Part 61, this letter outlines the additional actions which will be taken prior to the shipment of radwaste after December 27, 1983. We believe these additional measures will assure acceptable implementation of this new rule.

We routinely ship the following waste streams from Pilgrim Nuclear Power Station to Barnwell, South Carolina:

1) Dewatered Reactor Water Cleanup Filter/Resin,

2) Filter Aid from Travelling Belt Filter,

3) Dewatered Bead Resin,

4) Trash.

The first three of these waste streams are shipped in High Integrity Containers (HIC). The filter aid (2) is, by design, dried on the travelling belt filter, is inspected visually, and contains no free water. The dewatered resin streams (1 and 3) are dewatered in the HIC in accordance with an approved Pilgrim Station procedure and are visually inspected to assure that the free water requirements are met.

Trash is shipped in 55-gallon drums and LSA boxes. The containers are visually inspected to assure the lack of free water. Trash will routinely be identified as Class A as defined by 10 CFR 61.55 and does not have stability

requirements. Thus, we submit that all of our solid waste shipments currently meet the stability requirements of 10 CFR Part 61.

The waste classification requirements of 10 CFR Part 61 are new and we are making some modifications to Pilgrim Station procedures to fully implement this section. Samples of each waste batch shipped in HIC (waste streams (1), (2), and (3) above) are analyzed at Pilgrim Station using a GeLi multi-channel analyzer. In the past, we have reported on the shipping manifest all of the significantly present gamma-emitting isotopes identified, as well as Sr-90 and TUR. To implement the new requirements, we will now report in addition to those we have routinely included in the past, the presence of C-14, Tc-99, I-129, Pu-241, Cm-242, Ni-63, and tritium. We intend to use the methodologies in AIF/NESP-027, "Methodologies for Classification of Low-Level Radioactive Wastes from Nuclear Power Plants" to implement the waste classification requirements. (This report will be formally published in January, 1984 - a final draft of the report has been made available to NRC). We have additionally submitted samples of all our waste streams to SAI for identification and analysis of these newly required isotopes. When the results are available we will determine whether modifications to the above procedure are necessary. Also depending on those results, additional sampling and analysis may then be considered appropriate.

In the case of trash (4), the radiation level of each container is measured and the isotopic concentrations are scaled from this reading using an approved Pilgrim Station procedure. This procedure will be modified so as to obtain the newly required isotopes by use of appropriate scaling factors using the NESP-027 methodology.

We have applied these methods to past waste shipments from Pilgrim Station which are at the upper end of the range of activity levels. We have determined that the reactor water cleanup resins will generally be, but not exceed, Class C. The condensate resins will generally be Class B or C. The filter aid will be Class A or B. As previously stated, dry active waste will routinely be Class A.

As you are aware, Pilgrim Station shut down December 10, 1983 for its sixth refueling outage. Past experience indicates that outages produce more solid waste for shipment than normal operation. We expect this outage to be no different in this regard. To maintain our outage schedule we must be able to continue shipments of solid waste of all types. We expect to make our first shipment under 10 CFR Part 61 in January, 1984, and we expect some of that waste will exceed Class A.

As a result of decontamination operations to be conducted during the outage, we will be producing, through contracted services, some solidified decontamination wastes. This waste will also be handled in accordance with 10 CFR Part 61.

We will be happy to provide additional information if required.

Very truly yours,

W D Harrington

cc: Mr. Domenic B. Vassallo, Chief
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