

UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

OCT 1 1974

Docket No. 50-219

Jersey Central Power & Light Company ATTN: Mr. I. R. Finfrock, Jr. Vice President - Generation Madison Avenue at Punch Bowl Road Morristown, New Jersey 07960

Gentlemen:

Your letter dated June 1, 1973, submitted a description and analysis of proposed modifications to the Oyster Creek Nuclear Generating Station radioactive waste facility. These proposed modifications were developed so that the facility would be expected to meet the proposed Appendix I guidelines of 10 CFR Part 50. In response to our letters dated June 25, 1973 and October 10, 1973, you provided additional information in letters dated September 20, 1973, December 13, 1973 and May 17, 1974. Our letter of March 5, 1974 provided final comments on the liquid and solid radioactive waste treatment systems. This letter pertains to the gaseous waste treatment system and the requirements for completion of our review of your proposed modifications.

We find the proposed modifications for a non-seismic gaseous radioactive waste system is acceptable provided that:

- You will commit to designing the systems to Quality Group D (augmented)
 as described in the enclosed Sections IV and V of "Design Guidance for
 Radioactive Waste Management Systems Installed in Light-Water-Cooled
 Nuclear Power Reactor Plants", dated August 28, 1974;
- The off gas radioactivity release rate from the steam-jet air ejector will be limited to not greater than 260,000 uCi/sec (after a 30 minute delay);
- 3. You provide assurance that the off gas system can be reliably isolated within 10 minutes of a failure in the system; and
- 4. You provide assurance that the delay time for release of fission products from a rupture of the delay pipe will not be less than 60 minutes. (The delay time is the time required for gaseous fission products to migrate to the site boundary.)

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The above limitations will provide reasonable assurance that a single failure in the radioactive gaseous waste system will not result in 2 hour whole body doses to the public greater than 5 rem at the site boundary.

Prior to completion of modifications, submit for our review proposed technical specifications for the modified system. Within 60 days of the date of this letter, submit information required in items 1, 3 and 4 above. One signed original and 39 copies of your submittal will be required for our review.

Sincerely,

George Lear, Chief
Operating Reactors Branch #3
Directorate of Licensing

Enclosure:
Sections IV and V of "Design Guidance
for Radioactive Waste Management Systems
Installed in Light-Water-Cooled Nuclear
Power Plants," Directorate of Licensing,
August 28, 1974

cc: G. F. Trowbridge, Esquire
Shaw, Pittman, Potts, Trowbridge
and Madden
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Washington, D. C. 20006

GPU Service Corporation
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Honorable William W. Mason Major Lacey Township P. O. Box 475 Forked River, New Jersey 08731

George F. Kugler, Jr.
Attorney General
State of New Jersey
State House Annex
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DESIGN GUIDANCE FOR RADIOACTIVE WASTE MANAGEMENT SYSTEMS INSTALLED IN LIGHT-WATER-COOLED NUCLEAR POWER REACTOR PLANTS DIRECTORATE OF LICENSING

IV. Definition of "Quality Group D (Augmented)"

In addition to the requirements inherent in the codes and standards listed in Regulatory Guide 1.25 for Quality Group D, the following criteria, as minimum, should be implemented for components and systems designated as "Quality Group D (Augmented)" in this guide.

- a. The Quality Assurance provisions described in V of this guide should be applied.
- Pressure retaining components of process systems should utilize welded construction to the maximum practicable extent. Flanged joints or suitable rapid disconnect fittings should be used only where maintenance or operational requirements clearly indicate that such construction is preferable. Screwed connections in which threads provide the only seal should not be used except for instrumentation connections where welded connections are not suitable. Process lines should not be less than 3/4-inch. Screwed connections backed up by seal welding, socket welding or mechanical joints may be used on lines greater than 3/4-inch but less than 2-1/2 inch nominal size. For lines of 2-1/2 inch nominal pipe size and above, pipe welds should be of the butt-joint type. Backing rings should not be used in lines carrying resins or other particulate material. All welding constituting the pressure boundary of pressure retaining components should be performed by qualified welding procedures in accordance with ASME Pressure and Vessel Code Section IX.
- c. Complete process systems should be pressure tested to the maximum practicable extent. Piping systems should be hydrostatically tested in their entirety utilizing temporary plugs at atmospheric tank connections. Testing of piping systems should be performed in accordance with ANSI B31.1, ASME NB-6111.1 and NB-6111.2, but in no case less than 75 psig. The test pressure should be held for a minimum of 30 minutes with no leakage indicated.

V. Quality Assurance for Radioactive Waste Management Systems

A program shall be established that is sufficient to assure that the design, construction, and testing requirements are met. The following areas should be included in the program:

- a. Design and Procurement Document Control Measures should be established to insure that the requirements of this design guide are specified and included in design and procurement documents and that deviations there from are controlled.
- b. Control of Purchased Material, Equipment and Services Measures should be established to assure that purchased material, equipment and construction services conform to the procurement documents.
- c. Inspection A program for inspection of activities affecting quality should be established and executed by, or for, the organization performing the activity to verify conformance with the documented instructions, procedures and drawings for accomplishing the activity.
- d. Handling, Storage and Shipping Measures should be established to control the handling, storage, shipping, cleaning and preservation of material and equipment in accordance with work and inspection instructions to prevent damage or deterioration.
- e. Inspection, Test and Operating Status Measures should be established to provide for the identification of items which have satisfactorily passed required inspections and tests.
- f. Corrective Action Measures should be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment and nonconformances are promptly identified and corrected.