

Mr. Ehab Assayed Salem
18 St. Akaba
Kleopatra, Alexandria
Egypt

NOV 22 1985

Dear Mr. Salem:

This is in response to your letter dated November 5, 1985, in which you requested information about radioactive wastes and about containment spray systems.

The great quantity of material available on the subject of radioactive waste can only be touched briefly here; if more detail is needed, you are invited to contact Charles Willis, a member of my staff who specializes in this area. You mention reading the ASME book entitled "Nuclear Power Waste Technology." That was a good starting point; you may want to get a copy of the updated version which Al Moghissi says will be published soon, perhaps within six months. The NRC methodology for estimating radioactive waste generation is delineated in NUREG-0017 Rev. 1 and the US experience is summarized in NUREG/CR-2907 Vol. 2; both are enclosed.

You specifically asked about the treatment of gaseous radioactive effluents. This issue also is addressed in NUREG-0017 Rev. 1. The document that was once the standard reference in this area, ORNL-NSIC-25, is out of date and can no longer be recommended. Probably the best sources of detailed information in this area are the proceedings of the DOE air cleaning conferences which are available from the National Technical Information Service, 5258 Port Royal Road, Springfield, VA 22161, USA.

You also asked about containment spray systems. This is another broad area which can be addressed only briefly. As you know, the spray systems are engineered safety features designed to limit pressure, remove heat and reduce the radioactivity concentration in the containment atmosphere after a serious accident. Accordingly, the design criteria include such things as control, electrical power, mechanical design and water supply as well as radioiodine removal capability. Three references which I hope will be helpful are enclosed; these are §6.2.2 and §6.5.2 of the "Standard Review Plan," and ANSI/ANS Standard 56.5-1979.

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The principal containment spray issues now being reevaluated are those associated with assessing the impact on the radiological source term and the containment sump performance during the recirculation phase (Generic Issue A 43). We are not yet in a position to say just what either outcome will be.

Sincerely,

Original Signature
Robert M. Bernero

Robert M. Bernero, Director
Division of Systems Integration

Enclosures:
As stated

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R. Hauber

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J. Shapaker

C. Willis

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H. Smith

*See previous concurrence

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