

39

RECORD #39

TITLE: Generic guidance on Preplanned Methods for Alternate High-Range Noble Gas Monitoring

FISCHE: 68128-268



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

OCT 22 1985

MEMORANDUM FOR: Ross A. Scarano, Director  
Division of Radiation Safety and Safeguards  
Region V

FROM: Edward L. Jordan, Director  
Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement

SUBJECT: GENERIC GUIDANCE ON PREPLANNED METHODS FOR ALTERNATE  
HIGH-RANGE NOBLE GAS MONITORING

By memo dated August 6, 1985, you requested generic guidance for reviewing the preplanned alternate method (PPAM) of determining noble gas releases proposed by Palo Verde Nuclear Generating Station (PVNGS). This PPAM is required by the PVNGS Technical Specifications to be used as a backup for the High Range Noble Gas (HRNG) Monitors required by NUREG-0737, Item II.F.1. You stated Region V's position that any backup to the HRNG monitors must be a continuous monitor with a comparable range. However, based on discussions with cognizant members of NRR's staff, we have found that the PPAM does not necessarily have to be a continuous HRNG monitor as you suggest.

The current form of the technical specifications began with a memo dated October 20, 1981, from D. G. Eisenhut to T. E. Murley proposing that provisions for monitoring noble gas in the Standard Technical Specifications be relaxed. Prior to that time the action statement for an inoperable HRNG monitor required a plant shutdown. No technical basis could be found for this shutdown requirement, therefore, the provision for initiating a PPAM was substituted in the action statement. The intent of this revised action statement was to ensure that the licensee devise a feasible method to monitor noble gases as a backup to the HRNG monitors, but not to require redundant HRNG monitors.

Prior to issuance of NUREG-0737, interim requirements for monitoring HRNG was specified in NUREG-0578. During its review of these interim measures, NRR accepted a method of HRNG monitoring if the licensee could show that it was adequate to characterize the radioactive release without exceeding the dose limits of GDC-19. Many licensees have found that the simplest method was to install a local radiation survey instrument or meter on the effluent line. This is a preferable method to grab sampling since it is less dose intensive. It is generally easier to provide a shielded location for the meter readout than to shield a grab sampling station. Since it is necessary to take multiple grab samples to characterize a release, this can be a significant advantage.

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For many plants, the interim system installed to meet the requirements of NUREG-0578 now serves as the PPAM. The installed meters proposed by many of the plants is a desirable PPAM whose merits should be discussed with the licensee. However, taking the position that it is the only acceptable proposal is a significant deviation from the position established by NRR and thus would constitute a backfit. If PVNGS can show that its grab sampling method is capable of characterizing the noble gas release during the course of an accident within the guidelines of GDC-19, it should be acceptable to the staff.

If you have further questions regarding this, please contact my office.

Original Signed By  
E L Jordan

Edward L. Jordan, Director  
Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement

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