

June 28, 2002

Mr. J. A. Gray, Jr., Chairman
BWR Owners Group
Entergy Nuclear Northeast
440 Hamilton Avenue
P.O. Box 5029
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SUBJECT: CONTINGENCY PLANS FOR OBTAINING RADIOACTIVE SAMPLES
FOLLOWING THE ELIMINATION OF REGULATORY REQUIREMENTS ON
POST-ACCIDENT SAMPLING

Dear Mr. Gray:

The enclosed e-mail message forwarded to the Nuclear Regulatory Commission (NRC) staff by Mr. Thomas Green of the Boiling Water Reactor Owners Group (BWROG) asks about the staff's expectations for limiting occupational exposures to workers obtaining radioactive samples of reactor coolant, suppression pool, or containment atmosphere following the elimination of regulatory requirements on post-accident sampling. The staff discussed the need for contingency plans to obtain these samples in its safety evaluation (SE) for BWROG Topical Report NEDO-32991, "Regulatory Relaxation for BWR Post Accident Sampling Stations (PASS)," dated June 12, 2001. The staff also discussed the contingency plans in the notices published in the *Federal Register* on December 27, 2001 (66 FR 66949) and March 20, 2002 (67 FR 13027), which provided guidance for licensees to remove regulatory requirements for post-accident sampling using the consolidated line item improvement process (CLIIP). We included similar discussions about contingency plans in SEs for topical reports and specific license amendments for members of the Westinghouse and Combustion Engineering Owners Groups. The question from the member of the BWROG is whether licensees are obligated to demonstrate that the contingency plans for obtaining radioactive samples can be performed within the dose limits established for post-accident sampling systems [or stations] in NUREG-0737, "Clarification of TMI [Three Mile Island] Action Plan Requirements."

The NRC staff provided the following summary of its decision to approve eliminating PASS-related requirements in its SEs for topical reports submitted by the Westinghouse and Combustion Engineering Owners Groups:

The NRC is basing its decision on the acceptability of the proposal to eliminate PASS on the benefit that the information obtained from PASS would provide in accident management and emergency response. If this information was considered to be necessary, and therefore, planned to be obtained shortly after a severe accident, then a PASS would be prudent to ensure that samples could be taken promptly and exposure minimized. However, as described further in the summary to this Appendix [Analysis of Public Comments and Staff Responses], the information is not considered to be beneficial for accident management or

emergency response. Therefore, there is considered to be sufficient time to establish an alternate sampling capability if samples were considered to be beneficial in the longer term.

While acknowledging that PASS does not serve an essential role in either accident management or emergency planning, the staff expressed reservations about the potential for subsequent plant modifications to totally eliminate the option of taking samples of reactor coolant or containment atmospheres. The staff believes that there could be occasions following a severe accident in which samples could be requested by decision-makers to confirm other indications or to support long-term recovery operations. The staff, therefore, expressed a preference for licensees applying to eliminate PASS-related requirements to include a regulatory commitment to develop and maintain a contingency plan for obtaining samples of reactor coolant, containment sump or suppression pool, and containment atmosphere. This preference was included in the model applications for using the CLIIP and thus far, all license amendment requests approved by the NRC have included a regulatory commitment from the licensee to have such a contingency plan.

In calling for licensees to make a regulatory commitment to develop and maintain a contingency plan to obtain highly radioactive samples, the staff mentioned that the planning should consider needs such as sample points, shielding, and other features that would make it feasible to implement the contingency plan under severe accident conditions. The staff clarified that since the contingency plans were, at most, a supplement to other process and radiation measurements available to decision-makers during a severe accident, the plans did not need to be carried out in emergency plans or drills. In safety evaluations issued before its review and approval of NEDO-32991, the staff likewise stated that licensees do not need to demonstrate contingency plans in terms of the criteria in NUREG-0737 that had previously been applied to PASS. The staff's statements in those previous safety evaluations are equally applicable to the licensees for BWRs that have or will be requesting license amendments using the CLIIP.

In the absence of specific regulatory requirements governing the contingency plans, the governing regulations are those in Part 20, "Standards for Protection Against Radiation," of Title 10 of the Code of Federal Regulations (10 CFR Part 20), including provisions for keeping doses as low as is reasonably achievable. Implementation of the contingency plan may also require decision-makers to consider the guidance in EPA 400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents." The staff has not prescribed specific assumptions related to timing, accuracy, source terms, or worker exposure limits for developing the contingency plans or for how the contingency plans are to be incorporated into licensee's severe accident and emergency preparedness programs. We nevertheless encourage licensees to perform an evaluation to provide confidence that a feasible contingency plan has been developed. Licensees may choose to use existing analyses of PASS designs, updated analyses using PASS-like design methods, or may evaluate their specific contingency plans taking advantage of more realistic assumptions regarding source terms and how the contingency plan might be used.

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The implementation and control of the regulatory commitment to develop and maintain a contingency plan should follow the licensee's administrative processes, including its commitment management program.

Questions about this response, whether from owners groups or individual licensees, may be directed to Bill Reckley at (301) 415-1323.

Sincerely,

/RA/

Cornelius F. Holden, Acting Director
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Project Nos. 691, 692, and 694

Enclosure: E-mail dated 9/29/01

cc w/encl: See next page

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