

June 6, 2000

MEMORANDUM TO: Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation

FROM: Ashok C. Thadani, Director **/RA/**  
Office of Nuclear Regulatory Research

SUBJECT: OFFICE CONCURRENCE ON COMMISSION INFORMATION PAPER;  
FINAL REGULATORY GUIDE 1.XXX (DG-1081), "ALTERNATIVE  
RADIOLOGICAL SOURCE TERMS FOR EVALUATING DESIGN-  
BASIS ACCIDENTS AT NUCLEAR POWER PLANTS"; AND  
STANDARD REVIEW PLAN SECTION 15.0.1, "RADIOLOGICAL  
CONSEQUENCE ANALYSES USING ALTERNATIVE SOURCE  
TERMS"

The Office of Nuclear Regulatory Research (RES) staff have reviewed the draft guide and have met with staff members from the Office of Nuclear Reactor Regulation (NRR) to discuss RES comments. The most recent discussions were by teleconference on May 26, and at that time there was agreement on the way that the RES comments would be resolved. The comments were in the following three areas.

1. Table 3 had been changed and now contains new lower release fractions. NRR staff is in the process of confirming the basis of the lower value.
2. A footnote for Table 3 addresses release assumptions for reactivity-initiated accidents (RIAs). Although the release fraction for the nearly stable (but radiologically insignificant) Kr <sup>85</sup> isotope had been increased based on recent RIA data, no corresponding increase had been made for the radiologically significant I<sup>131</sup>. Because we have not completed our confirmatory research program on RIAs and a likely outcome is that there will be no cladding failures, we recommended that no change be made to the current assumptions in Reg. Guide 1.77 for the RIAs. When the confirmatory program is completed and the releases of short-lived isotopes are assessed, the source term assumptions for all the important isotopes can be revised. The NRR staff agreed.
3. Some of the wording in Appendices B-H appeared too restrictive with regard to temperature increases during mild transients. Margins, which should be in Table 3 to cover the most limiting fuel assembly, should be adequate to cover any mild transient releases. These other transients are whole-core events for which average releases rather than limiting releases (Table 3) would be appropriate. NRR staff agreed to modify the words.

cc: G. Holahan, NRR

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