

December 8, 1999

MEMORANDUM FOR: William D. Travers
Executive Director for Operations

FROM: Annette Vietti-Cook, Secretary /s/

SUBJECT: STAFF REQUIREMENTS - AFFIRMATION SESSION, 9:25 A.M., WEDNESDAY, DECEMBER 8, 1999,
COMMISSIONERS' CONFERENCE ROOM, ONE WHITE FLINT NORTH, ROCKVILLE, MARYLAND (OPEN
TO PUBLIC ATTENDANCE)

I. [SECY-99-240](#) - Final Amendments to 10 CFR Parts 21, 50, and 54 and Availability for Public Comment of Draft Regulatory Guide DG-1081 and Draft Standard Review Plan Section 15.0.1 Regarding Use of Alternative Source Terms at Operating Reactors

The Commission⁽¹⁾ approved a final rule amending 10 CFR Parts 21, 50, and 54 to provide for the use of alternative source terms at operating reactors. These amendments set forth requirements and acceptance criteria for the use of a revised source term as an alternative to the TID-14844 source term by operating reactors. Operating reactors would have the option of continuing to use the TID-14844 source term or an approved alternative, such as that given in NUREG-1465.

This action would allow interested licensees to pursue cost-beneficial licensing actions to reduce unnecessary regulatory burden without compromising the safety of the facility. Many of the alternative source term applications may provide concurrent improvements in overall safety and in reduced occupational exposure.

The amendment also makes conforming changes to eliminate the need for exemptions from certain requirements in [10 CFR 50.34\(f\)](#) and from the dose criterion in [10 CFR Part 50, Appendix A](#), General Design Criterion (GDC-19), by applicants for construction permits, operating licenses, combined licenses, or design certifications who apply after January 10, 1997.

Following incorporation of the attached changes, the Federal Register notice should be reviewed by the Rules Review and Directives Branch in the Office of Administration and forwarded to the Office of the Secretary for signature and publication.

(EDO)

(SECY Suspense: 12/30/99)

The staff should provide the final regulatory guide, Standard Review Plan, and a summary of comments received on the draft versions, to the Commission for information by July 14, 2000.

(EDO)

(SECY Suspense: 7/14/00)

Attachment: As stated

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
EDO
OGC
CIO
CFO
OCAA
OCA
OIG
OPA
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR - Advance
DCS - P1-17

[ATTACHMENT](#)

Changes to the Final Rule in [SECY-99-240](#)

Changes to the Federal Register Notice

1. Clarify the proposed definition of "source term" in the final rule. In response to comments, the staff modified its proposed definition so that the draft final rule now provides that "source term" refers "to the fractions of the fission product inventory of the radionuclides released from the reactor fuel, their physical and chemical form, and the timing

of their release." This definition is confusing because it does not specify the numerator or denominator of the fractions to which the definition refers. This problem might be solved by refining the definition along the following lines:

"*Source term* refers to the magnitude and mix of the radionuclides released from the fuel, expressed as fractions of the fission product inventory in the fuel, as well as their physical and chemical form, and the timing of their release."

Ensure that conforming changes to the Federal Register notice are made.

2. In the Federal Register notice, the last sentence in the NRC response to the NEI comment 3 should be revised to read 'The §50.2 definition has been revised in the final rule to reflect the change suggested by NEI and that suggested by Arizona Public Service in their comment No. 1.'
3. The proposed Federal Register Notice (FRN) in the section titled "Appendix A to Part 50 - General Design Criteria for Nuclear Power Plants" (Page 50 of the FRN attached to the SECY), states that applicants for combined licenses "**shall** meet the requirements of this criterion" (the revised GDC 19). However, if a combined license applicant references a certified design that already used the TID-14844 source term (e.g., the ABWR-See Appendix A to Part 52), then this paragraph requires a backfit to the certified design, which is specifically prohibited by [10 CFR Part 52.63](#). The staff should revise the FRN with language similar to the following, and ensure that the corresponding text in the Statements of Consideration (SOCs), environmental assessment, regulatory analysis, and other attachments to the SECY are updated accordingly:

Applicants for and holders of construction permits and operating licenses under this part who apply on or after January 10, 1997, applicants for design certifications under Part 52 of this chapter who apply on or after January 10, 1997, applicants for and holders of combined licenses under Part 52 of this chapter who do not reference a standard design certification, or holders of operating licenses using an alternative source term under § 50.67, shall meet the requirements of this criterion, except that with regard to control room access and occupancy, adequate radiation protection shall be provided to ensure that radiation exposures shall not exceed 0.05 Sv (5 rem) total effective dose equivalent (TEDE) as defined in § 50.2 for the duration of the accident.

4. The staff should ensure that the language of the rule, the SOCs, and other attachments to the SECY are reviewed for accuracy. The following are specific items that should be corrected.
 - a. In the proposed section titled 50.67(a) "Applicability" (see page 47 of the FRN), it states that this is applicable to "all holders of operating licenses prior to January 10, 1997, and holders of renewed licenses under Part 54" whereas the Background section of the FRN (Page 8) states that the AST is applicable to "only to those facilities for which a construction permit was issued before January 10, 1997." The Background section of the SOCs should be revised to match the rule language.
 - b. The SECY and the SOCs refer to a "combined operating license," whereas Part 52 only refers to a "combined license." The staff should ensure that the final rule language, SOCs, and other SECY attachments are consistent with Part 52.
 - c. The SECY states that the rule language was modified to "correct the unintentional exclusion of holders of renewal licenses." Corresponding changes should be made to the draft regulatory guide and draft standard review plan.

Changes to the Press Release

1. Edit the last paragraph of the second page of the press release (Attachment 7), revising that paragraph to the following:

But what occurred in the Three Mile Island accident, in addition to extensive research which followed it, suggested that a release into the containment would be phased, rather than immediate, and that the radioactive iodine would be predominantly in the form of cesium iodide, an aerosol that is more amenable to mitigation mechanisms. Revised source terms published by NRC in 1995 reflected those findings. (Edit underlined)

1. Section 201 of the Energy Reorganization Act, 42 U.S.C. Section 5841, provides that action of the Commission shall be determined by a "majority vote of the members present." Commissioner Dicus was not present when this item was affirmed. Accordingly the formal vote of the Commission was 4-0 in favor of the decision. Commissioner Dicus however, had previously indicated that she would approve this paper and had she been present she would have affirmed her prior vote.