

POLICY ISSUE

(NOTATION VOTE)

February 25, 2012

SECY-12-0032

FOR: The Commissioners

FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: REPORT TO CONGRESS ON ABNORMAL OCCURRENCES: FISCAL
YEAR 2011

PURPOSE:

To obtain Commission approval to submit to Congress the "Report to Congress on Abnormal Occurrences: Fiscal Year (FY) 2011".

BACKGROUND:

Section 208 of the Energy Reorganization Act of 1974 (Public Law 93-438) defines an "abnormal occurrence" (AO) as an unscheduled incident or event that the U.S. Nuclear Regulatory Commission (NRC) determines to be significant from the standpoint of public health or safety. The Federal Reports Elimination and Sunset Act of 1995 (Public Law 104-66) requires that the NRC must report AOs to Congress annually. Enclosure 1 to this paper presents a draft of the "Report to Congress on Abnormal Occurrences: Fiscal Year 2011" (NUREG-0090, Volume 34).

DISCUSSION:

The enclosed draft AO report describes 5 events at NRC-licensed or regulated facilities and 19 events at Agreement-State-licensed facilities. The first event at an NRC-licensed facility involved radiation exposure to an embryo/fetus, and the second was an event of high safety significance at a commercial nuclear power plant. The other three NRC licensee events were medical events, as defined in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 35, "Medical Use of Byproduct Material". The first Agreement State event involved radiation exposure to an embryo/fetus, the second event involved an exposure to the extremities of a radiographer, and the third event involved a stolen radiography camera. The other 16 Agreement State events were medical events, as defined in 10 CFR Part 35. All of the events meet the criteria for AO categorization, as defined in Appendix A to the enclosed report.

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**SECY NOTE: THIS SECY PAPER TO BE RELEASED TO THE PUBLIC 5 WORKING DAYS
AFTER DISPATCH OF THE LETTER(S).**

Historically, the NRC reports about 10 AOs in the "Report to Congress on Abnormal Occurrences" in an average year. For this fiscal year (FY) 2011 report, 24 AOs are described. Nineteen of the 24 AO events were medical events as defined in 10 CFR Part 35. It should be noted that 9 of the 24 AO events occurred in previous fiscal years, and the NRC completed its evaluation in FY 2011. The remaining AOs involve one commercial reactor event, two events involving radiation exposure to an embryo/fetus, one event involving radiation exposure to an adult, and one event involving a stolen radiography camera. In addition to the 24 events in this report, the staff has identified an additional 11 events in FY 2007–FY 2011 that are potentially AOs for which additional information is required. Reasons the additional information has not been provided include ongoing pre-decisional enforcement actions that must be resolved and the additional time needed for follow-up of certain events. The staff is working with the Agreement States and licensees to obtain the necessary information, and a future report will include these events as appropriate.

Appendix B, "Updates of Previously Reported Abnormal Occurrences," to the enclosed report provides updated information for one event (a medical event at Providence Hospital in Novi, Michigan) reported in the FY 2010 "Report to Congress on Abnormal Occurrences". During FY 2010, the NRC identified three items as meeting the guidelines for inclusion in Appendix C, "Other Events of Interest." These three events occurred at commercial nuclear power plants. Appendix D, "Glossary," contains definitions of terms used throughout this report. Appendix E, "Conversion Table," presents conversions commonly used when calculating doses.

Appendix C to the FY 2010 AO report included a potential significant accident sequence precursor (ASP) event at the H.B. Robinson Steam Electric Plant, Unit 2 pending the results of the final ASP calculation. The description of this event stated that if the final ASP calculation for the event met the AO criteria (i.e., a conditional core damage probability of greater than or equal to 1×10^{-3}), then this event would be included in the FY 2011 AO Report. In SECY-11-0138, "Status of the Accident Sequence Precursor Program and the Standardized Plant Analysis Risk Models," dated September 30, 2011 (see Agencywide Documents Access and Management System (ADAMS) Accession No. ML112170424), the staff informed the Commission that the result of the event's final ASP calculation was 4×10^{-4} , which did not meet the AO criteria for inclusion in this year's AO report.

The NRC initially promulgated the AO criteria in a policy statement that the Commission published in the *Federal Register* on February 24, 1977 (42 FR 10950), followed by several revisions in subsequent years. The most recent revision to the AO criteria was published in the *Federal Register* on October 12, 2006 (71 FR 60198). That revision, which became effective on the same date, established the criteria that the NRC uses to define AOs for the purpose of the enclosed report, as set forth in Appendix A.

In SECY-07-0037, "Report to Congress on Abnormal Occurrences: Fiscal Year 2006," dated February 22, 2007 (see ADAMS Accession No. ML070170294), the Office of Nuclear Regulatory Research (RES) informed the Commission that it would coordinate with the Office of Federal and State Materials and Environmental Management Programs, the Office of New Reactors and other program offices for revisions to the AO criteria. RES established a working group to evaluate and recommend changes to the current AO criteria. The working group is currently evaluating recommendations from the Advisory Committee on the Medical Use of Isotopes for the medical event criteria (Criteria III.C) and recommendations from the Office of New Reactors for creating criteria for new reactor construction. The working group will submit a paper with revised AO criteria to the Commission for approval in FY 2012.

RECOMMENDATION:

The staff recommends that the Commission approve the proposed FY 2011 AO report to Congress, as well as the proposed letter forwarding the report to Congress.

After receiving Commission approval to proceed with the report, the staff will submit the enclosed letter to transmit the report to the Speaker of the House of Representatives and NRC's oversight committees. The NRC's Office of Congressional Affairs will then arrange for appropriate distribution to Congress. The NRC staff also will issue a *Federal Register* notice describing the AOs and announcing publication of the enclosed report.

COORDINATION:

The Office of the General Counsel has reviewed the draft AO report and has no legal objection.

/RA Michael F. Weber for/

R. W. Borchardt
Executive Director
for Operations

Enclosures:

1. NUREG-0090, Vol. 34, "Report to Congress
on Abnormal Occurrences: Fiscal Year 2011"
2. House of Representatives Letter

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