UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

OFFICE OF THE
SECRETARY

March 27, 2002

# COMMISSION VOTING RECORD

DECISION ITEM: SECY-02-0032

TITLE: REPORT TO CONGRESS ON ABNORMAL OCCURRENCES FOR FISCAL YEAR 2001

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of March 27, 2002.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:
1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
OGC
EDO
PDR

# VOTING SUMMARY - SECY-02-0032

## RECORDED VOTES

| | APRVD | DISAPRVD | ABSTAIN | NOT PARTICIP | COMMENTS | DATE |
|---|---|---|---|---|---|---|
| CHRM. MESERVE | X | | | | X | 03/09/02 |
| COMR. DICUS | X | | | | X | 03/15/02 |
| COMR. DIAZ | X | | | | X | 03/11/02 |
| COMR. McGAFFIGAN | X | | | | X | 03/15/02 |
| COMR. MERRIFIELD | X | | | | X | 03/07/02 |

## COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and provided some additional comments or edits. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on March 27, 2002.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: CHAIRMAN MESERVE

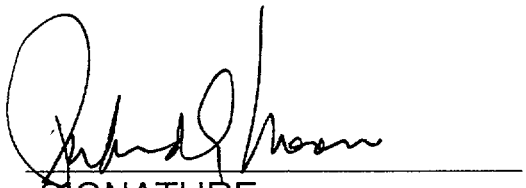
SUBJECT: **SECY-02-032 - REPORT TO CONGRESS ON ABNORMAL OCCURRENCES FOR FISCAL YEAR 2001**

Approved xw/ edits Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

I approve the issuance of the FY 2001 Abnormal Occurrences report subject to the modifications identified in the attached markup of the draft report.



SIGNATURE

March 9, 2002

DATE

Entered on "STARS" Yes ✓ No _____

# PREFACE

## INTRODUCTION

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 is significant from the standpoint of public health or safety. The Federal Reports Elimination and Sunset Act of 1995 (Public Law 104-66) requires that AOs be reported to Congress annually. This report discusses those events that the NRC determined were AOs during Fiscal Year 2001.

The NRC used the criteria in Appendix A to define AOs for the purpose of this report. The criteria were initially promulgated in the NRC policy statement that was published in the *Federal Register* on February 24, 1977 (42 FR 10950). This policy statement was published before medical licensees were required to report medical misadministrations to the NRC, and few of the examples in the policy statement were applicable to medical misadministrations. Therefore, in 1984, the NRC adopted additional guidance for reporting medical misadministrations as AOs. In 1996, the NRC revised the AO criteria, including the criteria for medical misadministrations. They were published in the *Federal Register* on December 19, 1996 (61 FR 67072). In 1997, the NRC again revised the AO criteria to include gaseous diffusion plants. The newest criteria were published in the *Federal Register* on April 17, 1997 (62 FR 18820).

The NRC has determined that, of the incidents and events reviewed for this reporting period, only those that are described herein meet the AO criteria for being reported as AOs. The information reported for each AO includes the date and place, the nature and probable consequences, the cause or causes, and actions taken to prevent recurrence.

Appendix A to this report presents the criteria for selecting AOs and the guidelines for selecting "Other Events of Interest." Appendix B contains updates on previously reported AOs (there were no updates in FY 2001). Appendix C presents information on events that are not reportable to Congress as AOs, but are included in the AO report as "Other Events of Interest" based on guidelines provided by the Commission and listed in Appendix A to this report.

Historically, the body of the AO report and Appendix C describe events that must be reported to the NRC or an Agreement State and the events that NRC licensees and Agreement States voluntarily report to the NRC.

To disseminate information widely to the public, the NRC issues a *Federal Register* describing AOs at facilities licensed or otherwise regulated by the NRC or an Agreement State. Information on activities licensed by Agreement States is also publicly available from the Agreement State.

## THE REGULATORY SYSTEM

The system of licensing and regulation by which the NRC carries out its responsibilities is implemented through the rules and regulations in Title 10 of the *Code of Federal Regulations* (10 CFR). Public participation is an element of the regulatory process. To accomplish its objectives, the NRC regularly conducts licensing proceedings, inspection and enforcement activities, operating experience evaluations, and confirmatory research, and maintains programs for establishing standards and issuing technical reviews and studies.

## ABNORMAL OCCURRENCES
## IN FISCAL YEAR 2001

## NUCLEAR POWER PLANTS

Using the criteria in Appendix A to this report, none of the events that occurred at U.S. nuclear power plants during this reporting period was significant enough to be reported as an AO.

## FUEL CYCLE FACILITIES
(Other Than Nuclear Power Plants)

Using the criteria in Appendix A to this report, none of the events that occurred at fuel cycle facilities during this reporting period was significant enough to be reported as an AO.

## OTHER NRC LICENSEES
(Industrial Radiographers, Medical Institutions, etc.)

Using the criteria in Appendix A to this report, the following event, ~~that~~ which occurred at a facility licensed by the NRC, was determined to be significant enough to be reported as an AO during this reporting period:

01-1 Occupational Overexposure at Southeast Missouri State University in Cape Girardeau, Missouri

Criterion I.A.1 of Appendix A to this report states that any unintended radiation exposure to an adult (any individual 18 years of age or older) resulting in an annual sum of the deep dose equivalent (external dose) and the committed dose equivalent (intake of radioactive material) to any individual organ or tissue, other than the lens of the eye, the bone marrow, and the gonads, of 2500 millisievert (mSv) (250 rem) or more will be considered for reporting as an AO.

Date and Place — June 13–16, 2000, Southeast Missouri State University (the university), Cape Girardeau, Missouri. The information available to the staff prior to the publication of the FY 2000 report was not sufficient to determine if this event met the AO criteria.

Nature and Probable Consequences — In 1970, the university was authorized by ~~an NRC licensee~~ a license issued by the Atomic Energy Commission, the NRC's predecessor, to possess and use up to 185 megabecquerel (MBq) [5 millicurie (5 mCi)] of americium-241 (Am-241) in unsealed form. The authorized user of the Am-241 died in 1980. In 1991, the university requested and received an amendment to its NRC license to remove authorization to possess and use certain radionuclides, including Am-241. The university disposed of some radionuclides in its possession but inadvertently kept the unsealed Am-241.

On February 16, 2000, a routine NRC inspection at the university found that the radiation program had deteriorated significantly. Specifically, since August 1, 1999, the university had been without a radiation safety officer (RSO), and the university officials were not sure whether they had radioactive materials in their possession or what materials they were authorized to possess. They did not know the general terms and conditions of their license. During the inspection, the licensee and an NRC inspector found an apparently empty vial labeled as containing 185 MBq (5 mCi) of Am-241 in a safe, located in the basement of the university, along with additional unauthorized material.

To assess the generic implications of this issue, the NRC issued Bulletin 2001-01, "Circumferential Cracking of Reactor Vessel Head Penetration Nozzles," on August 3, 2001. Previously, the NRC issued Information Notice 2001-05 on April 30, 2001, to alert licensees to the findings at ONS3.

All license holders for pressurized water reactor plants have responded to Bulletin 2001-01. In their responses, licensees included such details as their vessel head configurations, any previously identified leakage, past inspections performed and future planned inspections. Inspections of CRDM nozzle penetrations continue to be performed as plants shut down for refueling outages. The staff is using the Bulletin responses and new inspection results to develop a long-term strategy for managing this issue.

## NRC AND AGREEMENT STATE MATERIALS LICENSEES

During FY 2001, 684 events involving materials licensees were reported to the NRC. In 298 of these events, licensed material entered the public domain in an uncontrolled manner. Seventy of the 298 events were reported by NRC licensees and 228 were reported by Agreement State licensees. In some cases, the material caused radioactive contamination or radiation exposure. Most of these events posed little risk to public health. The NRC is aware of only a few events in which members of the public received measurable radiation doses from the loss of control of licensed material, and no events in which acute health effects to a member of the public are expected.

The 298 events of loss of control of licensed material involved both medical and industrial licensed materials. Examples are (1) radioactive sources used in medical treatments or research and development, (2) gauges used to measure the moisture density in soils and to monitor production processes for quality control in construction and civil engineering, (3) chemical agent monitors/detectors used by the military to detect the presence of chemical warfare agents, and (4) tritium used to illuminate exit signs and mortar-sighting mechanisms in the military.

Any loss of control of material is undesirable. To prevent future incidents, the NRC and Agreement States have issued generic communications to inform licensees about these events and their consequences. In some cases, enforcement actions have been taken, and regulatory changes intended to increase licensees' accountability for generally licensed devices have been developed and are being implemented. The NRC is currently evaluating additional security and control requirements for sources. Further, in response to the events of September 11, 2001, the NRC is conducting a top-to-bottom review of security matters concerning materials licensees.

The following example of loss of control of material is provided for an illustration.

Lost Portable Gauge in Richmond, Virginia

On February 8, 2001, Draper Aden Associates, an NRC licensee, reported the loss of a Troxler Electronic Laboratories portable gauge that contained 1.48 gigabecquerels (GBq) [8.5 millicurie (mCi)] of cesium-137 and 0.3 GBq (49 mCi) of americium-241.

The loss of control was caused by gauge operator's failure to block and brace the portable gauge prior to and during transport on February 8, 2001. The gauge was returned to the licensee on February 9, 2001.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER DICUS

SUBJECT: **SECY-02-0032 - REPORT TO CONGRESS ON ABNORMAL OCCURRENCES FOR FISCAL YEAR 2001**

Approved __X__ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

Greta Joy Dicus
SIGNATURE

March 15, 2002
DATE

Entered on "STARS" Yes __X__ No ____

## ABNORMAL OCCURRENCES IN FISCAL YEAR 2001

## NUCLEAR POWER PLANTS

Using the criteria in Appendix A to this report, none of the events that occurred at U.S. nuclear power plants during this reporting period was significant enough to be reported as an AO.

## FUEL CYCLE FACILITIES
(Other Than Nuclear Power Plants)

Using the criteria in Appendix A to this report, none of the events that occurred at fuel cycle facilities during this reporting period was significant enough to be reported as an AO.

## OTHER NRC LICENSEES
(Industrial Radiographers, Medical Institutions, etc.)

Using the criteria in Appendix A to this report, the following event, that occurred at a facility licensed by the NRC, was determined to be significant enough to be reported as an AO during this reporting period:

01-1 Occupational Overexposure at Southeast Missouri State University in Cape Girardeau, Missouri

Criterion I.A.1 of Appendix A to this report states that any unintended radiation exposure to an adult (any individual 18 years of age or older) resulting in an annual sum of the deep dose equivalent (external dose) and the committed dose equivalent (intake of radioactive material) to any individual organ or tissue, other than the lens of the eye, the bone marrow, and the gonads, of 2500 millisievert (mSv) (250 rem) or more will be considered for reporting as an AO.

Date and Place — June 13–16, 2000, Southeast Missouri State University (the university), Cape Girardeau, Missouri. The information available to the staff prior to the publication of the FY 2000 report was not sufficient to determine if this event met the AO criteria.

Nature and Probable Consequences — In 1970, the university was ~~authorized by an NRC license~~ licensed by the Atomic Energy Commission, NRC's predecessor, to possess and use up to 185 megabecquerel (MBq) [5 millicurie (5 mCi)] of americium-241 (Am-241) in unsealed form. The authorized user of the Am-241 died in 1980. In 1991, the university requested and received an amendment to its NRC license to remove authorization to possess and use certain radionuclides, including Am-241. The university disposed of some radionuclides in its possession but inadvertently kept the unsealed Am-241.

On February 16, 2000, a routine NRC inspection at the university found that the radiation program had deteriorated significantly. Specifically, since August 1, 1999, the university had been without a radiation safety officer (RSO), and the university officials were not sure whether they had radioactive materials in their possession or what materials they were authorized to possess. They did not know the general terms and conditions of their license. During the inspection, the licensee and an NRC inspector found an apparently empty vial labeled as containing 185 MBq (5 mCi) of Am-241 in a safe, located in the basement of the university, along with additional unauthorized material.

gjc
3-15-02

After the discovery of the unauthorized material, the university hired a consultant to characterize the material in the safe, and assess contamination in and around the area. On April 19, 2000, the consultant inventoried the contents of the safe and found elevated radiation levels in the room where the safe was located. On June 13, 2000, the consultant began to perform surveys and decontamination activities and identified loose Am-241 contamination. Inadequate radiological surveys and poor handling techniques used by the consultant resulted in contamination in a number of areas in the basement.

On June 21, 2000, the NRC initiated a special inspection in response to a report from the university on loose Am-241 contamination. NRC surveys independently confirmed the Am-241 contamination.

The licensee restricted access to all contaminated areas, interrupted the decontamination process, and performed internal dose assessments of individuals potentially exposed to Am-241 contamination. These assessments indicated that the consultant received a calculated committed dose equivalent to the bone surface of 2630 millisievert (263 rem). The licensee hired a second consultant to complete the decontamination process. The consultant has been a doctor, had one year's medical treatment, and no adverse health effects are expected.

Cause or Causes — The licensee possessed radioactive material not authorized by the NRC license and failed to perform adequate radiation surveys, including air sampling to measure airborne radioactivity present during the inventory and decontamination activities. The survey instruments were incapable of detecting alpha activity which is needed to identify the presence of Am-241. In addition, from August 1, 1999, to July 10, 2000, the licensee had no RSO to oversee and ensure implementation of an effective radiation protection program.

Actions Taken to Prevent Recurrence

Licensee — The licensee appointed a new RSO and revised its radiation safety program, with an emphasis on inventory control. Specifically, the university implemented new property control and surplus inventory policies and procedures that included: (1) review and approval by the RSO of property transfers of potentially contaminated equipment, (2) surveys of surplused equipment for contamination control, and (3) training of personnel in the correct procedures for surplusing equipment containing radioactive material.

NRC — On September 13, 2001, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty against the university for the violation associated with the June 2000 radiation overexposure to the consultant. The fine was $11,000. The NRC also issued Information Notice 2001-01 to emphasize the importance of accurate inventory controls to prevent unauthorized possession of radioactive material.

This event is closed for the purpose of this report.

gjd
3-15-02

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## AGREEMENT STATE LICENSEES

Using the criteria in Appendix A to this report, the NRC determined that the following event at an Agreement State licensed facility during this reporting period was significant enough to be reported as an AO:

AS 01-1 Industrial Radiography Occupational Overexposure at Quality Inspection Services, Inc., in Jacksonville, Florida

Criterion I.A.1 of Appendix A to this report states that any unintended radiation exposure to an adult (any individual 18 years of age or older) resulting in an annual total effective dose equivalent of 250 millisievert (mSv) (25 rem) or more will be considered for reporting as an AO.

Date and Place — February 16, 2001, Quality Inspection Services, Inc., Jacksonville, Florida.

Nature and Probable Consequences — Based on discussions with the involved individuals, it was determined that a radiographer retracted a 2.15 terabecquerel (58 curie) iridium-192 source into what was thought to be a locked, shielded, and fully retracted position inside the radiography camera. In setting up for the next shot, the radiographers noticed that the source had not been secured in the off position after the previous shot and that their survey meters and their pocket dosimeters were off scale. The radiographers immediately retracted the source to its fully shielded position and exited the working area. Film badges belonging to the radiographers indicated exposures of 29 mSv (2.9 rem) and 392 mSv (39.2 rem).

Cause or Causes — The radiographers failed to perform an adequate survey of the radiography camera after performing radiographic operations. In addition, the alarming ratemeter worn by one of the radiographers was not turned on during radiography. The alarming ratemeter for the second radiographer had a low battery and did not produce an audible alarm.

Actions Taken To Prevent Recurrence

Licensee — The licensee conducted a reenactment of the event and, based on lessons learned, the training procedures were revised to prevent future incidents. The licensee performed a cytogenetic (blood) test to evaluate the radiography overexposures. These blood test results were normal and further testing was declined by the radiographer. No adverse health effects are expected.

State Agency — The State of Florida Bureau of Radiation Control determined that the radiographer failed to follow procedures and took enforcement action against the licensee. The State reviewed and accepted the licensee's corrective actions, which included refresher training.

This event is closed for the purpose of this report.

gjd
3-15-02

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NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER DIAZ

SUBJECT: **SECY-02-0032 - REPORT TO CONGRESS ON ABNORMAL OCCURRENCES FOR FISCAL YEAR 2001**

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See edits.

SIGNATURE

3.11.02

DATE

Entered on "STARS" Yes XX No ____

# PREFACE

## INTRODUCTION

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 is significant from the standpoint of public health or safety. The Federal Reports Elimination and Sunset Act of 1995 (Public Law 104-66) requires that AOs be reported to Congress annually. This report discusses those events that the NRC determined were AOs during Fiscal Year 2001.

The NRC used the criteria in Appendix A to define AOs for the purpose of this report. The criteria were initially promulgated in the NRC policy statement that was published in the *Federal Register* on February 24, 1977 (42 FR 10950). This policy statement was published before medical licensees were required to report medical misadministrations to the NRC, and few of the examples in the policy statement were applicable to medical misadministrations. Therefore, in 1984, the NRC adopted additional guidance for reporting medical misadministrations as AOs. In 1996, the NRC revised the AO criteria, including the criteria for medical misadministrations. They were published in the *Federal Register* on December 19, 1996 (61 FR 67072). In 1997, the NRC again revised the AO criteria to include gaseous diffusion plants. The newest criteria were published in the *Federal Register* on April 17, 1997 (62 FR 18820).

The NRC has determined that, of the incidents and events reviewed for this reporting period, only those that are described herein meet the AO criteria for being reported as AOs. The information reported for each AO includes the date and place, the nature and probable consequences, the cause or causes, and actions taken to prevent recurrence.

Appendix A to this report presents the criteria for selecting AOs and the guidelines for selecting "Other Events of Interest." Appendix B contains updates on previously reported AOs (there were no updates in FY 2001). Appendix C presents information on events that are not reportable to Congress as AOs but are included in the AO report as "Other Events of Interest" based on guidelines provided by the Commission and listed in Appendix A to this report.

Historically, the body of the AO report and Appendix C describe events that must be reported to the NRC or an Agreement State and the events that NRC licensees and Agreement States voluntarily report to the NRC.

To disseminate information widely to the public, the NRC issues a *Federal Register* describing AOs at facilities licensed or otherwise regulated by the NRC or an Agreement State. Information on activities licensed by Agreement States is also publicly available from the Agreement State.

## THE REGULATORY SYSTEM

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## APPENDIX C

## OTHER EVENTS OF INTEREST

This Appendix discusses "Other Events of Interest," that do not meet the abnormal occurrence (AO) criteria but have been perceived by Congress or the public to be of high health and safety significance, have received significant media coverage, or have caused the NRC to increase its attention to or oversight of a program area, or a group of similar events that have resulted in licensed materials entering the public domain in an uncontrolled manner.

### NUCLEAR POWER PLANTS

Circumferential Cracks on Reactor Vessel Head Penetrations at the Oconee Nuclear Station Unit 3

This event did not meet the AO reporting criteria since it did not involve a serious degradation in the reactor coolant system pressure boundary or a major reduction in the protection of public health or safety.

On February 18, 2001, with Oconee Nuclear Station Unit 3 (ONS3) in Mode 5, Duke Energy Corporation (the licensee) performed a visual examination of the outer surface of the unit's reactor pressure vessel (RPV) head to look for indications of borated water leakage. This RPV head inspection was part of a normal surveillance during a planned maintenance outage. The visual examination revealed the presence of small amounts of boric acid residue in the vicinity of 9 of the 69 control rod drive mechanism (CRDM) penetration nozzles. Subsequent nondestructive examinations (NDEs) identified recordable crack indications in these nine degraded CRDM penetration nozzles. While repairing the nozzles, the licensee discovered that two CRDMs had significant circumferential cracks in the nozzle above the weld. Post-outage third party review of the NDE records identified a third circumferential crack above the weld, in a nozzle that was repaired during the outage. Circumferential cracking of CRDM nozzles and welds is a degradation of the reactor coolant system pressure boundary and raises concerns about a potentially risk-significant generic condition affecting all domestic pressurized water reactors (PWRs). Further investigations and metallurgical examinations revealed that these cracks had initiated from the outside diameter (OD) of the CRDM penetration nozzles. Based on metallurgical examinations, the root cause for the CRDM penetration nozzle cracking was primary water stress corrosion cracking (PWSCC). Appropriate repairs were completed.

Axial cracking in PWR CRDM nozzles has been previously identified, evaluated, and repaired at domestic PWRs. Numerous small-bore Alloy 600 nozzles and pressurizer heater sleeves have experienced leaks attributed to PWSCC. Generally, these components are exposed to temperatures of 600 degrees Fahrenheit or higher and to primary water, as are the ONS3 CRDM nozzles. However, circumferential cracks above the weld from the OD to the inside diameter have not been previously identified in the United States.

On July 30, 2001, the NRC issued a letter documenting its decision to exercise enforcement discretion in accordance with Section VII.B.6 of the NRC Enforcement Policy and refrain from issuing enforcement action for a violation of the Technical Specifications for reactor coolant system pressure boundary leakage. Enforcement discretion was warranted because the violation involved an equipment failure that was not avoidable by reasonable quality assurance measures or management controls and was considered to have resulted from matters not within the licensee's controls.

To assess the generic implications of this issue, the NRC issued Bulletin 2001-01, "Circumferential Cracking of Reactor Vessel Head Penetration Nozzles," on August 3, 2001. Previously, the NRC issued Information Notice 2001-05 on April 30, 2001, to alert licensees to the findings at ONS3.

All license holders for pressurized water reactor plants have responded to Bulletin 2001-01. In their responses, licensees included such details as their vessel head configurations, any previously identified leakage, past inspections performed and future planned inspections. Inspections of CRDM nozzle penetrations continue to be performed as plants shut down for refueling outages. The staff is using the Bulletin responses and new inspection results to develop a long-term strategy for managing this issue. and appropriate repairs are being made prior to returning the plants to operation

**NRC AND AGREEMENT STATE MATERIALS LICENSEES**

During FY 2001, 684 events involving materials licensees were reported to the NRC. In 298 of these events, licensed material entered the public domain in an uncontrolled manner. Seventy of the 298 events were reported by NRC licensees and 228 were reported by Agreement State licensees. In some cases, the material caused radioactive contamination or radiation exposure. Most of these events posed little risk to public health. The NRC is aware of only a few events in which members of the public received measurable radiation doses from the loss of control of licensed material, and no events in which acute health effects to a member of the public are expected.

The 298 events of loss of control of licensed material involved both medical and industrial licensed materials. Examples are (1) radioactive sources used in medical treatments or research and development, (2) gauges used to measure the moisture density in soils and to monitor production processes for quality control in construction and civil engineering, (3) chemical agent monitors/detectors used by the military to detect the presence of chemical warfare agents, and (4) tritium used to illuminate exit signs and mortar-sighting mechanisms in the military.

Any loss of control of material is undesirable. To prevent future incidents the NRC and Agreement States have issued generic communications to inform licensees about these events and their consequences. In some cases, enforcement actions have been taken, and regulatory changes intended to increase licensees' accountability for generally licensed devices have been developed and are being implemented. The NRC is currently evaluating additional security and control requirements for sources. Further, in response to the events of September 11, 2001, the NRC is conducting a top-to-bottom review of security matters concerning materials licensees.

The following example of loss of control of material is provided for an illustration.

Lost Portable Gauge in Richmond, Virginia

On February 8, 2001, Draper Aden Associates, an NRC licensee, reported the loss of a Troxler Electronic Laboratories portable gauge that contained 1.48 gigabecquerels (GBq) [8.5 millicurie (mCi)] of cesium-137 and 0.3 GBq (49 mCi) of americium-241.

The loss of control was caused by gauge operator's failure to block and brace the portable gauge prior to and during transport on February 8, 2001. The gauge was returned to the licensee on February 9, 2001.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MCGAFFIGAN

SUBJECT: **SECY-02-0032 - REPORT TO CONGRESS ON ABNORMAL OCCURRENCES FOR FISCAL YEAR 2001**

Approved X w/comments & edits Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments, and edits.

Edward McGaffigan Jr.
SIGNATURE

March 15, 2002
DATE

Entered on "STARS" Yes X No ____

Comments from Commissioner McGaffigan on SECY-02-0032:

I approve the report to Congress on abnormal occurrences for FY 2001 with the following changes:

1. On page 11 of the report, under "Lost Portable Gauge in Richmond, Virginia," correct the SI activity levels of the gauge to read, ".... portable gauge that contained 0.3 gigabecquerels (GBq) [8.5 millicurie (mCi)] of cesium-137 and 1.8 GBq (49 mCi) of americium-241."

2. On both Congressional letters, combine the existing second and third paragraphs. Add a new closing paragraph that states:

   "In addition to this report to Congress, NRC is issuing a Federal Register notice describing the NRC and Agreement State licensee AOs and announcing publication of the report."

I agree with the Chairman's and Commissioner Diaz' changes to the report. I also agree with Items 1 and 2 of Commissioner Merrifield's vote.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MERRIFIELD

SUBJECT: **SECY-02-0032 - REPORT TO CONGRESS ON ABNORMAL OCCURRENCES FOR FISCAL YEAR 2001**

Approved ✓ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

See attached comments.

SIGNATURE

3/7/02

DATE

Entered on "STARS" Yes ✓ No ____

Comments from Commissioner Merrifield on SECY-02-0032:

I approve the report to Congress on abnormal occurrences for FY 2001 as contained in SECY-02-0032 with the following modifications:

1. In the section labeled **OTHER NRC LICENSEES**, report 01-1 Occupational Overexposure at Southeast Missouri State University in Cape Girardeau, Missouri, last paragraph under Nature and Probable Consequences, there is a sentence which reads "These assessments indicated that the consultant received a calculated committed dose equivalent to the bone surface of 2630 millisievert (263 rem)." After this sentence, add the following "The consultant has seen a doctor, had one therapeutic medical treatment, and no adverse health effects are expected."

2. In the section labeled **AGREEMENT STATE LICENSEES**, report AS 01-1 Industrial Radiography Occupational Overexposure at Quality Inspection Services, Inc., in Jacksonville, Florida, add the following sentences at the end of the paragraph labeled Nature and Probable Consequences: "For the radiographer with the highest exposure, blood tests were normal and he declined further testing. No adverse health effects are expected."

3. In Appendix C, the discussion for the Oconee circumferential cracks in the reactor vessel head penetrations should be significantly revised. In particular, the last two paragraphs should be replaced with a better description of what was done for Bulletin 2001-01. The staff should discuss the plants that were shutdown to do inspections and that there was extensive NRC/industry interactions on this important issue. The staff should use the information in the monthly reports to Congress as the replacement wording for these last two paragraphs.