

April 5, 2007

MEMORANDUM TO: Luis A. Reyes
Executive Director for Operations

FROM: Andrew L. Bates, Acting Secretary **/RA/**

SUBJECT: STAFF REQUIREMENTS - SECY-07-0037 - REPORT TO
CONGRESS ON ABNORMAL OCCURRENCES: FISCAL YEAR
2006

The Commission has approved the Abnormal Occurrence Report and letters to Congress, subject to the comments and changes noted below. The staff should incorporate these changes and forward the letters for the Chairman's signature.

Comments and changes to the Abnormal Occurrence Report:

1. Page iii, paragraph 6, revise line 3 to read ' ... radioactive material, and other discrete sources' Revise line 5 to read ' ... monitor events involving these materials that may meet
2. Page viii, paragraph 3 under "REPORTABLE EVENTS," correct the spelling of "publicly."
3. Page ix, paragraph under "UPDATES OF PREVIOUSLY REPORTED ABNORMAL OCCURRENCES," delete the last sentence and replace with "The NRC does not have any updated information on events reported in the FY 2005 Report to Congress on Abnormal Occurrences."
4. Page 1, revise the report to provide the name and location of the fuel cycle facility where the loss of criticality controls occurred.
5. Page 1, next to last paragraph, revise lines 7 and 8 to read ' ... initially test the ~~Blended Low Enrichment Uranium~~ process.' Delete the last sentence (The downblending ... 2004.
6. Page 2, last paragraph, delete the sentence in lines 7 and 8 (The urologist ... 3 seeds.) and replace it with "Concerning the 72 seeds not in the intended treatment site, the urologist was able to recover 3 seeds and determined that 69 seeds were implanted inferior to the prostate in the wrong treatment site."
7. Page 3, for event 06-03, revise line 1 to read 'Criterion 1.A.42, ...'

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8. Page 6, 1st full paragraph, revise lines 4 and 5 to read ' ... and represents a prescribed dose or dosage that is at least 50 percent greater'
9. Page 6, under "Cause(s)," revise line 1 to read ' ... event was caused by human'
10. Page 7, 1st full paragraph, revise line 4 to read ' ... base of the prostate gland'
11. Page 7, 1st full paragraph for event AS 06-05, revise line 5 to read ' ... 50 percent greater than that prescribed'
12. Appendix C, Page 16, revise Paragraphs 1 and 2 under "NUCLEAR POWER PLANTS" as follows:

Ground Water Contamination Caused by Undetected Leakage of Radioactive Water

~~The NRC recently identified~~ In 2005 and 2006, several instances of unintended releases of radioactive liquids were identified at multiple facilities plants. The releases were caused by undetected leakage from facility structures, systems, or components that contain or transport radioactive fluids. Subsequent water sampling in and around these plants identified tritium as the primary source of contamination. Tritium is a mildly radioactive isotope of hydrogen that occurs both naturally and during the operation of nuclear power plants. Nuclear plants normally release water containing tritium and other radioactive substances under controlled, monitored conditions that the NRC mandates to protect public health and safety. Although none of the releases meet the abnormal occurrence criteria, they are being included in this report because of the significant public, Congressional and media interest.

The NRC established a Liquid Radioactive Release Lessons Learned Task Force in response to the unplanned, unmonitored releases of radioactive liquids into the environment. ~~Although some of the events occurred in 2005, they are included in this report because~~ The Task Force's produced a report was published on September 1, 2006, and can be found at <http://www.nrc.gov/reactors/operating/ops-experience/grndwtr-contam-tritium.html>. The report's most significant conclusion was that, although there had been industry events where radioactive liquid was released to the environment in an unplanned and unmonitored fashion, there were no instances identified where the release had an adverse impact on public health and safety. ~~The task force also concluded that under the existing regulatory requirements, the potential exists for unplanned and unmonitored releases of radioactive liquids to migrate off site and into the public domain without detection.~~ Indeed, the maximum potential dose in all of these incidents, a dose unlikely to have been received by any person outside the plants' boundaries, was less than the dose an average individual in the United States receives in one day during the course of routine activities from naturally occurring radiation sources (such as the radium-226 in the building materials of the Capitol), and was well below the regulatory limit for planned releases. In all cases, the licensee took, or is taking, appropriate corrective action to prevent further unplanned releases. The NRC staff is currently evaluating and responding to the task force recommendations.

This event is closed for the purpose of the report.

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Delete the individual event descriptions for each plant.

13. In the cover letters, the staff should revise the last sentence of the first paragraph to reflect that the Commission reports significant events from both a public health and safety, and security standpoint and other events that the Commission determines may be of interest to Congress.
14. In the cover letters, paragraph 3, revise line 3 to read ' ... radioactive material, and other discrete sources' Revise line 5 to read ' ... monitor events involving these materials that may meet'

cc: Chairman Klein
Commissioner McGaffigan
Commissioner Merrifield
Commissioner Jaczko
Commissioner Lyons
OGC
CFO
OCA
OPA
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)
PDR

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