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RECORD #236

TITLE: The Meaning of "...May Have Caused or Threatens to Cause..." in 10 CFR 20.403



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

June 20, 1991

MEMORANDUM FOR: James H. Joyner, Chief, FRSSB, DRSS, Region I  
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FROM: LeMoine J. Cunningham, Chief  
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SUBJECT: THE MEANING OF "...MAY HAVE CAUSED OR THREATENS TO CAUSE..."  
IN 10 CFR 20.403

A comment on the proposed revision of 10 CFR 20.403 (55FR 19890, 5/14/90) and consideration of the applicability of 10 CFR 20.403 to one circumstance of a recent enforcement case (Hatch, Inspection Report No. 50-321/91-05) has resulted in a clarification of the meaning, with respect to exposure and releases, of the condition, "...any event involving licensed material that may have caused or threatens to cause..." in 10 CFR 20.403(a) and (b).

The words "may have caused" in 10 CFR 20.403 apply to a retrospective view of the event at the time prompt reporting is being considered. The words "threatens to cause" apply to a prospective view at that time.

The words "...may have caused...[an] exposure...or...release" in 10 CFR 20.403 are used in the context of the rapid assessment of the significance of an event with respect to determining whether or not the event must be reported "immediately" or "within 24 hours." Somewhat similar words, "substantial potential for an exposure or release..." are used in Supplement IV.C.4 of the NRC Enforcement Policy (10 CFR Part 2 Appendix C) in the context of determining the significance of an event with respect to determining the Severity Level of a violation after it has been determined that the violation has occurred. However, the words "may have caused..." in 10 CFR 20.403 do not have exactly the same meaning as the words "substantial potential..." in the Enforcement Policy. The words "may have caused" do not refer to an exposure or release that (at the time the need for prompt reporting is being considered) is known not to have occurred even though there was a "substantial potential" for the exposure or release.

For an example of the difference between "may have caused" and "substantial potential," consider a hypothetical event (based on the event at Hatch) in which there was a "substantial potential" for someone entering a particular room and receiving a whole-body exposure of 5 rems or more while in the room. When considering the need for prompt reporting of an event, if it is known that someone entered the room and that the person received, or may have

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received, an exposure of 5 rems or more, then that event is reportable under 10 CFR 20.403. However, if it is known that no one entered the room, the event is not reportable under 10 CFR 20.403 even though a substantial potential may have existed for someone to enter the room and receive the exposure.

With respect to the requirements of 10 CFR 20.403, the preceding discussion has considered situations in which an exposure or release that exceeded the specified values is known not to have occurred. If the conditions for a reportable release or overexposure are known to have been present (i.e., because of the known circumstances, there is at least a possibility that such an event did occur), and the licensee is unable to establish definitively that the suspected event actually did not occur, then the licensee must make a report. The report is not an admission on the part of the licensee that the event occurred; rather, it merely allows NRC the opportunity to participate in evaluating whether or not the event did, in fact, occur. It is important that NRC have this opportunity while the known facts and circumstances are still fresh in the minds of the cognizant individuals.

Although not reported to the NRC, information on significant radiological exposures and releases at nuclear power reactors that fall below the reporting thresholds of 10 CFR 20.403 (including events that have a "substantial potential for an exposure or release...") usually is available to inspectors in the files of licensee radiological event tracking systems or as feedback from resident inspectors. These events could result in violations.

In consideration of the ordinary meanings (dictionary definitions) of "threaten," we understand "threatens to cause" in 10 CFR 20.403 to mean "probably is about to cause" or, in other words, "likely will cause soon."

The clarifications given in this memorandum have been coordinated with OE, NMSS, AEOD and RES. OGC has no legal objections.

*Blaine Munday*

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Although not reported to the NRC, information on significant radiological exposures and releases at nuclear power reactors that fall below the reporting thresholds of 10 CFR 20.403 (including events that have a "substantial potential for an exposure or release...") usually is available to inspectors in the files of licensee radiological event tracking systems or as feedback from resident inspectors. These events could result in violations.

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Original signed by Blaine Murray,  
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*DDR*

*no legal objection*

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