



United States Nuclear Regulatory Commission

*Protecting People and the Environment*

# **Revision to Abnormal Occurrence Criteria: ACMUI 2008 Recommendations Revisited**

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# **Abnormal Occurrence (AO) Definition:**

An unscheduled incident or event that the NRC determines to be significant from the standpoint of public health or safety.<sup>1</sup> (emphasis added)

<sup>1</sup> Section 208 of the Energy Reorganization Act of 1974 (Public Law 93-438)



## 2008 ACMUI AO DISCUSSION

- Medical AOs dominate the list of AOs reported to Congress.
- Most not medically significant



# CURRENT MEDICAL AO CRITERIA

(71 FR 60198)

*A medical event that:*

1. Results in a dose that is:
  - a. Equal to or greater than 1 Gy (100 rad) to a major portion of the bone marrow, or to the lens of the eye; or equal to or greater than 2.5 Gy (250) rad to the gonads; **OR**
  - b. Equal to or greater than 10 Gy (1,000 rad) to any other organ or tissue; **AND**

## CURRENT MEDICAL AO CRITERIA

2. Represents either:
  - a. A dose or dosage that is at least 50% greater than that prescribed; **OR**
  - b. A prescribed dose or dosage that:
    - (i) Uses the wrong radiopharmaceutical or unsealed byproduct material; or
    - (ii) Is delivered by the wrong route of administration; or
    - (iii) Is delivered to the wrong treatment site; or
    - (iv) Is from a leaking source or sources; or
    - (v) Is delivered to the wrong individual or human research subject.



# PROPOSED MEDICAL AO CRITERIA<sup>2</sup>

A medical event that results in:

1. death; or
2. a significant impact on patient health that would result in permanent functional damage or a significant adverse health effect that would not have been expected from the normal treatment regimen, as determined by an NRC or Agreement State-designated consultant physician.

<sup>2</sup> Recommended by the ACMUI at the April 2008 public ACMUI meeting.



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# DISCUSSION

