



# **SUMMARY CHANGES DOE O 232.2**

**Presented to: Enforcement  
Coordination Working Group Fall 2011  
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# Summary Changes - General

- **Replaces DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information***
  - *Complete re-write of current order*
- **Cancels *Causal Analysis and Performance Analysis Guides***
  - DOE-STD-1197-2011, *Occurrence Reporting Causal Analysis*
- **Organization:**
  - *General Requirements and Applicability*
  - *Attachment 1: Contractor Requirements Document*
  - *Attachment 2: Occurrence Reporting Criteria*
  - *Attachment 3: Occurrence Report Preparation*
  - *Attachment 4: Occurrence Reporting Model*
  - *Attachment 5: Causal Analysis Tree*
  - *Attachment 6: Definitions*

# Summary Changes - Process

- **Significance Category definitions clarified**
  - More descriptive definitions
- **Categorization time remains at 2 hours – however recognizes may take longer**
- **Additional information required for S/CI reporting**
- **Two new cause codes**
  - B3 – Legacy
  - B4 No Cause is Applicable
- **Several changes to Definitions (additions and editorial)**
- **Database being modified**

# Summary Changes - Process

- **Removed specificity in Reporting Model**
  - **Cause Analysis**
  - **Effectiveness Reviews**
  - **Independent Verification**
  - **Trained Investigators**

# Summary Changes - Criteria

- Numerous editorial modifications and updates to reference standards and requirements
- Clarification of some requirements
- In some cases, existing criteria has been split into multiple criteria (Occ. Injury/Exposure; Haz. Electrical Energy / Other Haz. Energy)
- In some cases, criterion has been removed (Group 2A(1), “illnesses” was removed); added (Group 2A(6), “concussion” ) or reworded (Group 10(3) Near Miss)

# Summary Changes - Criteria

- **Several existing criteria split**
  - **Group 2A** (Currently Occupational Illness/Injuries – includes Exposures)
    - Group 2A (Occupational Injuries)
    - Group 2B (Occupational Exposures)
  - **Group 2B** (Currently Fires /Explosions)
    - Group 2C – Fires
    - Group 2D – Explosions
  - **Group 2C** (Currently Hazardous Energy Control)
    - Group 2E – Hazardous Electrical Energy Control
    - Group 2F – Hazardous Energy Control (Other than electrical)
  - **Other minor title changes**

# Summary Changes - Criteria

- **Several new criteria added**
  - **Group 2A(3); 2B(1); 2B(3); 2B(5); 2C(4); 2E(3); 2F(3);**
  - **Group 3B(3); 3C(1); 3C(4)**
  - **Group 5A(4); 5B(2)**
  - **Group 6C – General Note**
  - **Group 7**
  - **Group 8(2); 8(3); 8(4); 8(7); 8(9)**
  - **Group 9(2)**

# NTS REPORTING THRESHOLD DETERMINATION IMPACT

## DOE Enforcement Process Overview

**Table A.1 – Noncompliance Associated With Occurrences (DOE Manual 231.1-2)**

Reporting Criteria	Subgroup	Occurrence Category and Summary Description
1. Operational Emergencies	N/A	(1) Operational Emergency (2) Alert (3) Site Area Emergency (4) General Emergency
2. Personnel Safety and Health	A. Occupational Illnesses/Injuries	(1) Fatality/terminal illness (2) Inpatient hospitalization of $\geq 3$ personnel (3) >3 personnel having DART cases (4) Personnel exposure > limits requiring medical treatment (5) Personnel exposure > limits (6) Serious occupational injury
	B. Fires/Explosions	(1) Unplanned fire/explosion within primary confinement/containment (2) Unplanned fire/explosion in a nuclear facility that activates a fire suppression system (3) Unplanned fire/explosion in a non-nuclear facility
	C. Hazardous Energy Control	(1) Process failure resulting in burn, shock (2) Process failure/discovery of uncontrolled energy source
3. Management Concerns/Issues	N/A	(3) Near Miss (Significance Categories 1 through 3)

# NTS REPORTING THRESHOLD DETERMINATION IMPACT

## DOE Enforcement Process Overview

**Table B.1 – Noncompliances Associated With Occurrences (DOE Manual 231.1-2)**

Reporting Criteria Group	Subgroup	Occurrence Category and Summary Description
1. Operational Emergencies <sup>3</sup>	N/A	(1) Operational Emergency (2) Alert (3) Site Area Emergency (4) General Emergency
2. Personnel Safety and Health	<b>B. Fires/Explosions</b>	<b>(1) Unplanned fire/explosion</b>
3. Nuclear Safety Basis	A. Technical Safety Requirement (TSR) Violations	(1) Violation of TSR/Operational Safety Requirement (OSR) Safety Limit (2) Violation of other TSR/OSR requirement (3) Violation of DSA hazard control
	B. Documented Safety Analysis (DSA) Inadequacies	(1) Positive unreviewed safety question (USQ)
	<b>C. Nuclear Criticality Safety</b>	<b>(1) Loss of all valid criticality controls</b>
4. Facility Status	A. Safety Structure/System/Component (SSC) Degradation	(1) SSC performance degradation
	B. Operations	(2) Actuation of Safety Class SSC (4) Facility Evacuation

# NTS REPORTING THRESHOLD DETERMINATION IMPACT

## DOE Enforcement Process Overview

**Table B.1 – Noncompliances Associated With Occurrences (DOE Manual 231.1-2) (cont.)**

Reporting Criteria Group	Subgroup	Occurrence Category and Summary Description
5. Environmental	A. Releases	(1) Radionuclide release
6. Contamination/Radiation Control	A. Loss of Control of Radioactive Material (RAM)	(1) Offsite RAM exceeding DOE limits (2) Loss of RAM (>100X 835 App. E)
	B. Spread of Radioactive Contamination	(1) Offsite radioactive contamination
	C. Radiation Exposure	(1) Exceedance of DOE dose limits (2) Unmonitored exposure (3) Single exposure > thresholds
	D. Personnel Contamination	(1) Offsite medical assistance (2) Offsite personnel/clothing contamination (3) Onsite personnel/clothing contamination
7. Nuclear Explosive Safety	N/A	(1) Damaged nuclear explosive (2) Introduction of electrical energy (3) Safety feature compromise (4) Inadvertent substitution (5) Violation of a safety rule (6) Damage to a training unit

# NTS REPORTING THRESHOLD DETERMINATION IMPACT

## DOE Enforcement Process Overview

- **Wording changes (editorial)**
- **Category changes (editorial)**
- **Criteria changes (technical)**
  - Additions
  - Deletions
- **Possible delays in implementation**