FESHM 3010: SIGNIFICANT AND REPORTABLE OCCURRENCES

Revision History

Author	Description of Change	Revision No. & Date
W. James	Added FESHM Chapter formatting template. Updated to address changes in reporting criteria and time permitted by contractor to submit initial reports per DOE O 232.5 effective 1/1/12.	February 2012
W. James	Revision 0, Initial release Chapter 3010	December 2009

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1.0 INTRODUCTION

It is the policy of the Laboratory that Laboratory management and the Department of Energy are appropriately notified of all events which could (1) affect the safety and health of the public or workers; (2) seriously impact the intended purpose of the Laboratory; (3) have an adverse effect on the environment; or (4) create publicity detrimental to the mission of the Laboratory, in accordance with DOE Order 232.2.

The procedures for reporting appropriate events are contained in the technical appendix to this chapter and can be found in greater detail in Section 6 of DOE M231.1-1A. This ES&H Manual chapter outlines the internal roles and responsibilities for notification and categorization of events, and investigation of occurrence, generating and submitting reports. See flow chart at end of chapter for clarification.

Types of reportable occurrences involve, but are not limited to: facility conditions; environmental concerns; personnel safety, radiological protection, safeguards and security, transportation, loss or damage to DOE property, defective items, materials, or services; and cross-category items to include related occurrences, near miss events, and potential concerns.

2.0 DEFINITIONS

See appendix 6.8 for definitions specific to occurrence reporting criteria.

3.0 RESPONSIBLILITIES

3.1 The Chief Operating Officer is responsible for

- Acting as the Facility Manager for the Laboratory. This individual will make the final decision as to whether an incident is a reportable occurrence.
- Notifying the DOE-Fermi Site Office (FSO) of reportable occurrences and providing the FSO Manager a copy of the notification report.
- Coordinating activities when multiple divisions/sections are involved.
- Assuring the occurrence reports are placed into the DOE occurrence report database in a timely manner.
- Determining need for formal investigations and reports.
- Approving final investigation report.
- Reviewing corrective action as reports are submitted to DOE.
- Ensuring all corrective actions is tracked to closure.

3.2 The Division/Section Head or designee is responsible for

- Providing timely identification, categorization and notification to the Facility Manager of an event that represents a potential for being an event or condition requiring categorization. Use

Technical Appendix 6.1 for guidance and consulting with the ES&H ORPS Manager or Deputy Head as necessary.
- Providing for the timely submittal of the Occurrence Reporting and Processing System (ORPS) report to the Facility Manager.
- Conducting investigation of the incident utilizing subject matter experts as appropriate and complete necessary reports. See FESHM 3020 for additional information.
- Assuring all corrective actions are placed into frESHTRK and coordinating the implementation of all corrective actions. See FESHM 1040.1 for additional information.
- Assuring lessons learned are developed and submitted to ES&H.
- Assuring requirement to report occurrences flows down to subcontractors through contract document.

3.3 The ES&H Director or designee is responsible for

- Maintaining and utilizing the on-line DOE ORPS central occurrence report database that serves as the repository for all Laboratory occurrence reports.
- Disseminating "lessons learned" that are prepared by the affected division/section. See FESHM 3020 and 3030 for more details, including format of written lessons learned.
- Analyzing related occurrences in order to improve performance in environment, safety, health, security, or Laboratory operations.
- Notifying external regulatory authorities as applicable (Note - the Illinois Department of Nuclear Safety must be notified of any radiological incident classified as unusual occurrence or emergency).
- Performing analysis of Occurrence Reports on a quarterly basis, using all occurrence reports from the preceding twelve (12) months.

3.4 The Division/Section Senior Safety Officer (SSO) is responsible for

- Developing lessons learned documents and submitting them to the ESH Section Head to share within the Laboratory.
- Assuring consistency between Occurrence Report and Computerized Accident/Injury Report (CAIRS), as necessary

4.0 PROCEDURES

4.1 Person Discovering Occurrence

- Make notification for emergency assistance (dial 3131) if appropriate.

- Notify your supervisor upon recognizing or witnessing an occurrence. Reporting requirements shall not take precedence over initial response and corrective actions. These are to be concurrent activities. The report of the event shall be made to supervisor within 2 hours

of identification of occurrence. See Technical Appendix 6.1 for a list of occurrences that must be reported.

4.2 Supervisor

- Assess the event, using Technical Appendix 6.1 for guidance if necessary, and notify division/section head.

4.3 Division/Section Head or Designee

- Determine if event requires reporting as an occurrence and its probable category. Use Technical Appendix 6.1 for guidance and consulting with the ES&H ORPS Manager or Deputy Head as necessary.

- Provide briefing to Facility Manager on occurrence, response actions, and current activity status.

- For those events requiring prompt notification to DOE HQ OC, complete the Notification Form (Appendix 6.7) and submit to ES&H ORPS Manager or designee.

- For events not requiring "prompt notification" complete the appropriate notification form for the event (Notification or Short Form Report Technical Appendix 6.3 and submit to the EHS ORPS Manager or designee not to exceed time limits set in Technical Appendix 6.1.

- Conduct investigation, utilizing Subject Matter Experts as necessary, and determine corrective actions. Enter corrective actions into frESHTRK for tracking purposes. Level of investigation shall be as identified in Appendix 6.1.

- Prepare update reports for ORPS when significant additional information is obtained or when events dictate change in classification and provide this information to the EHS ORPS Manager or designee.

- Implement, track and close corrective actions in frESHTRK. Provide to the ESH ORPS Manager or designee in written format the text of the corrective action taken and the date the action was completed, at the time the item was closed.

- Provide to the EHS ORPS Manager or designee all information in a written format in order for it to be processed and reviewed by DOE FSO and the Director prior to entry into the on-line DOE ORPS database. In order for the final report to be filed with DOE no later than 45 days after the incident.

4.4 Facility Manager (Chief Operating Officer)

- Within 2 hours of occurrence classify occurrence according to Technical Appendix 6.1.

- Contact the DOE FSO and report occurrence. Reporting time frame depends on occurrence classification. See Appendix 6.1 for guidance.

- Submit Prompt Notification form to DOE HQ OC within stated time frames by email and provide follow-up telephone call.

- Notify Lab Director and others, as appropriate.

- Review Notification Report and enter into DOE ORPS system within timeframe in Technical Appendix 6.1 and 6.2.

- Direct the conduct of formal investigations and reports, as appropriate.

- Approve final investigation report.

- Review update and final reports as submitted and entered into DOE ORPS system.

- Ensure corrective actions are closed out in final/closed reports.

4.5 Division/Section SSO

- Provide to the EHS ORPS Manager the required and detailed information for each data set required by this chapter to complete the initial notification and within the timeframe permitted by the particular significance category determined for the particular incident.

NOTE

The time allowed also includes the time necessary for the DOE-FSO and the Director to review this submission.

It may take these offices several hours to review the submission before allowing it to go forward in order to meet this deadline.

Plan the time accordingly

NOTE

- As corrective actions are completed, notify the ESH ORPS Manger or Designee in writing of the corrective action taken and the date it was accomplished, in order for this to be entered into the ORPS database/file. This notification should take place when the action is closed.

- Prepare appropriate Lessons Learned document within 10 working days of submittal of final ORPS report and submit to the ESH Section Head for distribution throughout the Laboratory (see FESHM 3020 for guidance in preparing lessons learned document).

4.6 ESH Director

- Distribute Lessons Learned throughout the Laboratory.

- Enter Lessons Learned into the DOE LL Database, as appropriate.

Written Notification Report

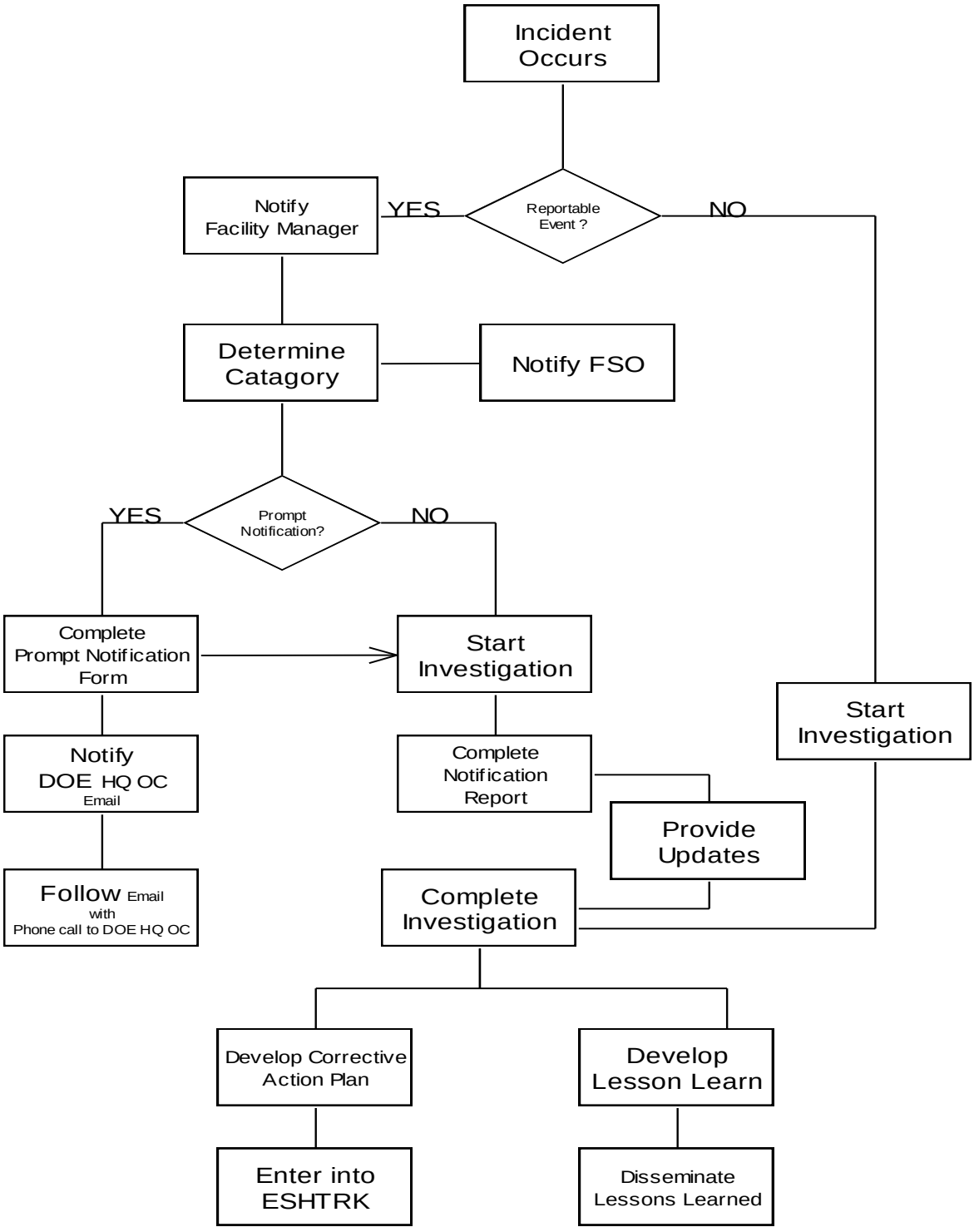
- Prompt Notification: those occurrences that are identified in Appendix 6.1 with an "*" require the completion and submission of the PROMPT NOTIFICATION FORM to the DOE HQ OC. This form is located at Appendix 6.7 and must be emailed to the DOE HQ OC at doehqeoc@oem.doe.gov (backup e-mail is: wtchofc2oem.doe.gov). The receipt of the email by DOE-EOC must be verified by calling (202)586-8100.

- Preparation of the Notification Report, Update and Final Report see Appendix 6.3.

- Occurrences involving foreign personnel, government organizations, entities of influence must be reported to the Office of Counter Intelligence.

5.0 REFERENCES

DOE M231.1-2, "Occurrence Reporting and Processing of Operations Information", August 2003
DOE O231.1A, "Environment, Safety and Health Reporting", August 2003
DOE G231.1-1, "Occurrence Reporting and Performance Analysis Guide", August 2003
DOE G231.1-2, "Occurrence Reporting Causal Analysis Guide", August 2003


Incident Occurs
Reportable Event ?
YES
NO
Notify Facility Manager
Determine Catagory
Notify FSO
Prompt Notification?
YES
NO
Complete Prompt Notification Form
Start Investigation
Start Investigation
Notify DOE HQ OC Email
Complete Notification Report
Provide Updates
Follow Email with Phone call to DOE HQ OC
Complete Investigation
Develop Corrective Action Plan
Develop Lesson Learn
Enter into ESHTRK
Disseminate Lessons Learned

6.0 TECHNICAL APPENDICES

6.1 Types of events requiring Occurrence Reports

Fermilab Specific Emergency Occurrences

Event	Indicators	Action	Classification
Tornado Watch	Information received from National Weather Service or DCERN indicating Tornado Watch for Kane or DuPage County and the cities of Aurora, Batavia, Warrenville or Wheaton	Inform ES&H Section Head of situation Activate the SEWs, read the prepared TORNADO WATCH statement.	None
Tornado Warning	Information received from National Weather Service or DCERN indicating Tornado Warning for Kane or DuPage County and the cities of Aurora, Batavia, Warrenville or Wheaton	Activate the SEWs, read the prepared TORNADO WARNING statement. All personnel are to seek shelter	None
Tornado Damage	Significant structural damage or widespread damage	Inform ES&H Section Head	**Operational Emergency not requiring further classification.** **15 minute notification to DOE.**
Propane	Frost Ball on ground in proximity to pipeline. Disagreeable odor Notification from Pipeline	Shelter or evacuate personnel in area based on IC judgment Inform ES&H Section Head	**Operational Emergency not requiring further classification.** **15 minute notification to DOE.**
Ammonia	Observable breach in railcar	Shelter or evacuate personnel in area based on IC judgment Inform ES&H Section Head	**Operational Emergency not requiring further classification.** **15 minute notification to DOE.**
Site 55-Fire	WS-3 Structure fully involved in fire.	Evacuate and secure area. Call for MABAS HAZMAT Response Team Inform ES&H Section Head	**Operational Emergency not requiring further classification.** **15 minute notification to DOE.**

ORPS Classification of these is based upon details of impact of event.

REPORTING REQUIREMENTS

Significance Category 1	**Significance Category R**	**Significance Category 2**	**Significance Category3**	**Significance Category 4**
NOTIFICATION				
Categorize: 2 hrs	Categorize: Time of SC R determination	Categorize: 2 hrs	Categorize: 2 hrs	Categorize: 2 hrs
Prompt Notification: 2 hrs	Prompt Notification: *Based on SC determination	Prompt Notification: 2 hrs	Prompt Notification: 2 hrs	Prompt Notification: 2 hrs (as required)
WRITTEN				
Written Notification: COB next business day not to exceed 90 hrs	Written Notification: COB 2 business days	Written Notification: COB next business day	Written Notification: COB 2 business days	Short Form Report: COB 2 business days (Short Form)
FINAL REPORT				
Final Report: 45 days	Final Report: 45 days	Final Report: 45 days	Final Report: 45 days	None

INVESTIGATION REQUIREMENTS

Significance Category 1	Significance Category R	Significance Category 2	Significance Category3	Significance Category 4
Investigator required. Root Cause determined through formal RCA. Corrective actions determined to address corrective actions. Contractor independently verifies corrective action closure. Must be entered into DOE LL database. DOE FSO/HQ approves report FINAL REPORT APPROVAL By Facility Representative and Program Manager Root Cause or Locally Approved Procedure	Root Cause determined through formal RCA. Corrective Actions developed to address RC. DOE-FSO approves report. Contractor independently verifies corrective action closure. Contractor assesses effectiveness of corrective actions. Must be entered into DOE LL database. FINAL REPORT APPROVAL Root Cause or Locally Approved Procedure	Trained investigator. Cause determined. DOE-FSO approves report. Corrective Actions developed. Contractor verifies corrective action closure by sampling. Must be entered into DOE LL database FINAL REPORT APPROVAL By Facility Representative Apparent Cause or Locally Approved Procedure	Cause determined. Corrective Action determined. Document completion of corrective actions. FINAL REPORT APPROVAL By Facility Manager (local/program option for Facility Representative) Apparent Cause or Locally Approved Procedure	No reporting of causal analysis or lessons learned in ORPS. The reporting of corrective actions is optional. FINAL REPORT APPROVAL Per local procedures Locally Approved Procedure

GROUP 1 OPERATIONAL EMERGENCIES			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
*Operational Emergency **NOT REQUIRING** further classification	*Operational Emergency An **ALERT**	*Operational Emergency A **SITE AREA EMERGENCY**	* Operational Emergency A **GENERAL EMERGENCY**
***Prompt notification to the DOE HQ OC**			

GROUP 2 PERSONNEL SAFETY AND HEALTH

Subgroup A Occupational Injuries.

[Note: See ―Personnel Exposure in Definitions in this Order. 29 CFR Sections 1904.7(b)(5)(i) and (ii) define ―medical treatment and ―first aid. For reporting ionizing radiation exposures, see Group 6 Contamination/Radiation Control, Subgroup C Radiation Exposure.]

Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *1 Any occurrence due to DOE operations resulting in a fatality or terminal injury/illness. Report fatalities or terminal illnesses caused by overexposures under Subgroup B, Occupational Exposures.	(3) 2 Any single occurrence resulting in an occupational injury that requires in-patient hospitalization for 5 days or more, commencing within 7 days from the date the injury was received. Note: This criterion is similar to one of the thresholds for initiating a Federal Accident Investigation Board. If such an investigation is begun, the event must be reported under Criterion 10(1), as well as under this criterion if the injury so warrants..	(5) 3 Any exposure including chronic resulting in a serious occupational injury. A serious occupational injury is an occupational injury that: a) Requires in-patient hospitalization for more than 48 hours, commencing within 7 days from the date the exposure was received; b) Damages any internal organ; c) Leads to diagnosis of a debilitating disease; or d) Causes second- or third-degree burns, affecting more than five percent of the body surface.	
(2) *1 Any single occurrence requiring in-patient hospitalization of three or more personnel	(4) 2 Any single occurrence resulting in three or more personnel having Days Away, Restricted or Transferred (DART) cases per 29 CFR Section 1904.7, *Recordkeeping Forms and Recording Criteria.*	(5) 3 Any single occurrence resulting in a serious occupational injury. A serious occupational injury is an occupational injury that: a) Requires in-patient hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; b) Results in a fracture of any bone (except bone chips, simple fractures of fingers, toes, or nose, or a minor chipped tooth); c) Causes severe hemorrhages or severe damage to nerves, muscles, tendons, or ligaments. **(Note: Severe damage is generally considered to have occurred if surgery is required to correct the damage.)**	

GROUP 2 PERSONNEL SAFETY AND HEALTH (CONT'd)			
Subgroup A Occupational Injuries. [Note: See ―Personnel Exposure in Definitions in this Order. 29 CFR Sections 1904.7(b)(5)(i) and (ii) define ―medical treatment and ―first aid. For reporting ionizing radiation exposures, see Group 6 Contamination/Radiation Control, Subgroup C Radiation Exposure.]			
Significance Category 1	Significance Category 1	Significance Category 1	Significance Category 1
		d) Damages any internal organ; e) **Causes (1) a concussion or (2) loss of consciousness due to an impact to the head, or** f) Causes second- or third-degree burns, affecting more than five percent of the body surface.	

GROUP 2 PERSONNEL SAFETY AND HEALTH			
Subgroup B Occupational Exposure. [Note: See ―Personnel Exposure in Definitions in this Order. 29 CFR Sections 1904.7(b)(5)(i) and (ii) define ―medical treatment and ―first aid. For reporting ionizing radiation exposures, see Group 6 Contamination/Radiation Control, Subgroup C Radiation Exposure.]			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *1 Any acute exposure from a chemical, biological, or physical hazard due to DOE operations resulting in a fatality or terminal injury/illness or requiring in-patient hospitalization of three or more personnel.	(2) 2 Any acute exposure resulting in an occupational injury that requires in-patient hospitalization for 5 days or more, commencing within 7 days from the date the exposure was received or any exposure event resulting in three or more personnel having Days Away, Restricted or Transferred (DART) cases per 29 CFR Section 1904.7, *Recordkeeping Forms and Recording Criteria*.	(4) 3 Personnel exposure to chemical, biological or physical hazards (e.g. noise, laser, ultraviolet light, heat, etc.) above limits established in 10 CFR Part 851, *Worker Safety and Health Program* (see 10 CFR Section 851.23, *Safety and Health Standards*), but below levels deemed immediately dangerous to life and health (IDLH), and requires the administration of medical treatment beyond first aid on the same day as the exposure.	(6) 4 Personnel exposure to chemical, biological or physical hazards (e.g. noise, laser, ultraviolet light, heat, etc.) above limits established in 10 CFR Part 851, but below levels deemed immediately dangerous to life and health (IDLH).
	(3) *2 Personnel exposure to chemical, biological or physical hazards that exceeds 10 times the limits established in 10 CFR Part 851, *Worker Safety and Health Program* (see 10 CFR Section 851.23 *Safety and Health Standards*) or exceeds levels deemed immediately dangerous to life and health (IDLH).	(5) 3 Any exposure including chronic resulting in a serious occupational injury. A serious occupational injury is an occupational injury that: a) Requires in-patient hospitalization for more than 48 hours, commencing within 7 days from the date the exposure was received; b) Damages any internal organ; c) Leads to diagnosis of a debilitating disease; or d) Causes second- or third-degree burns, affecting more than five percent of the body surface.	

GROUP 2 PERSONNEL SAFETY AND HEALTH			
Subgroup C Fires.			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *1 Any fire emergency or fire incident within primary confinement/containment boundaries of a nuclear facility, except a fire that self-extinguishes in 10 minutes or less	(2) *2 Any fire emergency or fire incident in a nuclear facility that: a) Activates a fixed automatic fire suppression system (clean agent or wet-pipe automatic sprinkler protection), or b) Is extinguished manually by the emergency response organization, or c) Disrupts normal operations in the facility, or d) Is a fire within primary confinement/containment that self-extinguishes in 10 minutes or less [Note: The activation or degradation of Safety Class and Safety Significant fire suppression systems are addressed by Group 4 Criteria.]	(3) *3 Any fire emergency or fire incident in a non-nuclear facility that a) Activates a fixed automatic fire suppression system, or b) Takes longer than 10 minutes to extinguish following the arrival of the emergency response organization, or c) Disrupts normal operations in the facility for more than eight hours.	(4) 4 Any fire in a nuclear facility. (5) *4 Any wild land fire (e.g., forest fire, grassland fire) or other fire outside of a DOE facility that has the potential to threaten the facility.

GROUP 2 PERSONNEL SAFETY AND HEALTH			
Subgroup D Explosions.			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *1 Any unplanned explosion within primary confinement/containment boundaries of a nuclear facility. [Note: Facility specific documents need to define what constitutes the primary confinement/containment boundary.]	(2) *2 Any unplanned explosion in a nuclear facility that disrupts normal operations in the facility.	(3) *3 Any unplanned explosion in a non-nuclear facility that disrupts normal operations in the facility.	

GROUP 2 PERSONNEL SAFETY AND HEALTH			
Subgroup E Hazardous Electrical Energy Control			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) 2 Any unexpected or unintended personal contact (burn, injury, etc.) with an electrical hazardous energy source (e.g., live electrical power circuit, etc.).	(2) 3 Any unexpected discovery of an uncontrolled electrical hazardous energy source (e.g., live electrical power circuit, etc.). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.	(3) 4 Any failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout, hazardous energy control program).

GROUP 2 PERSONNEL SAFETY AND HEALTH			
Subgroup F Hazardous Energy Control **(Other than electrical).**			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) 2 Any unexpected or unintended personal contact (burn, injury, etc.) with a hazardous energy source (e.g., powered mechanical hazards, steam, pressurized gas).	(2) 3 Any unexpected discovery of an uncontrolled hazardous energy source (e.g., powered mechanical hazards, steam, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin	(3) 4 Any failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout, hazardous energy control program).

Group 3 - Nuclear Safety Basis

Subgroup A Technical Safety Requirement and Other Hazard Control Violations (excluding nuclear criticality).
[Note: Report nuclear criticality events under Group 3, Subgroup C below]

*** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***

Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *1 Any violation of a nuclear facility's Technical Safety Requirement (or Operational Safety Requirement) Safety Limit.	(2) 2 Any violation or noncompliance of a Hazard Category 1, 2, or 3 nuclear facility's Technical Safety Requirement (or Operational Safety Requirement) Limiting Control Setting, Limiting Condition for Operation, Specific Administrative Control, or Surveillance Requirement. Exception: An event consisting solely of a surveillance test (to include any periodic activity explicitly captured in the DSA that is used to ensure operability or viability of a structure, system, or component) performed after the prescribed surveillance period, and in which the Structure, system, or component was found to be capable of performing its specified safety function. (See separate criterion for late surveillance tests below.)	(3) 3 Any violation or noncompliance of a credited hazard control specified in a Hazard Category 1, 2, or 3 nuclear facility's DOE approved Documented Safety Analysis [issued pursuant to 10 CFR Section 830.204, *Documented Safety Analysis*, and including Basis for Interim Operation (BIO), etc.], or DOE issued Safety Evaluation Report that are not addressed by Criteria 3A(1) and 3A(2). Exceptions: a) An event consisting solely of a violation of a safety management program (e.g., quality assurance, personnel training) cited in the Documented Safety Analysis. b) An event consisting solely of a surveillance test (to include any periodic activity explicitly captured in the DSA that is used to ensure operability or viability of a structure, system, or component) performed after the prescribed surveillance period, and in which the structure, system, or component was found to be capable of performing its specified safety function. (See separate criterion for late surveillance tests below.)	(4) 4 An event consisting solely of a surveillance test (to include any periodic activity explicitly captured in the DSA that is used to ensure operability or viability of a structure, system, or component) performed after the prescribed surveillance period, and in which the structure, system, or component was found to be capable of performing its specified safety function.

Group 3 - Nuclear Safety Basis			
Subgroup B Documented Safety Analysis Inadequacies *** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***			
	(1) 2 Determination of a **positive** Unreviewed Safety Question (USQ) that reveals a currently existing inadequacy in the documented safety analysis.	(2) 3 Declaration of a potential inadequacy of the documented safety analysis (a potential positive USQ), per 10 CFR Section 830.203(g). [Note: When a potential inadequacy of a documented safety analysis is found, it would be initially reported under Criterion 3B(2). If further analysis results in a positive USQ determination, then the occurrence report should be updated to recategorize it under Criterion 3B(1). If the analysis results in a negative USQ determination, the occurrence report should be updated to recategorize it under Criterion 3B(3).]	(3) 4 Determination of a **negative** Unreviewed Safety Question (USQ).

Group 3 - Nuclear Safety Basis			
Subgroup C Nuclear Criticality Safety Control Violations. *** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *OE A criticality accident occurs.	(3) 2 A loss of one or more nuclear criticality documented controls such that an accidental criticality is possible from the loss of one additional documented control.	(4) 3 A deficiency in criticality safety analysis or degradation of a documented criticality control (or controls) such that adequate controls were not in place for a credible criticality accident scenario.	
(2) *1 A condition in which no documented controls are available to prevent a criticality accident. An accident has not occurred due to other, non-documented barriers or controls.			

Group 4 - Facility Status

[Note: The criteria below apply to both nuclear and non-nuclear facilities. However, criteria specific to Safety Class or Safety Significant Structures, Systems, or Components would apply only to nuclear facilities.]

Subgroup A Safety Structure/System/Component Degradation (Nuclear Facilities).

[Note: Performance degradation includes the absence of or deficiency with Design Features for which credit has been taken in the Documented Safety Analysis.]

Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
		(1) 3 Performance degradation of any Safety Class (SC) or Safety Significant (SS) Structure, System, or Component (SSC), or any support system that is required for safety operation of the SC or SS SSCs, which prevents satisfactory performance of its design function when it is required to be operable.	(2) 4 Performance degradation of any Safety Class SSC when not required to be operable.

Group 4 - Facility Status

Subgroup B Operations

	(1) *2 A formal change of operational mode or curtailment of work or processes) directed by a DOE Field Element Manager or Contracting Officer for safety reasons (e.g., a Stop Work Order).	(3) 3 Actuation of a Safety Significant Structure, System, or Component (SSC), or its alarms as a result of an actual unsafe condition. Spurious alarms (e.g., due to electronic noise, radon/thoron decay) should not be reported.	(5) 4 A facility operational event which resulted in an adverse effect on safety, such as, but not limited to: a) an inadvertent facility or operations shutdown (i.e., a change of operational mode or curtailment of work or processes), b) a manual facility or operations shutdown due to alarm response procedures, c) an inadvertent process liquid transfer, or d) an inadvertent release of hazardous material from its engineered containment.
		(4) 3 A facility evacuation, other than a precautionary evacuation or an evacuation due to false alarms or spurious alarms (e.g., due to electronic noise, radon/thoron decay). If the	(6) 4 A facility or operations shutdown (i.e., a change of operational mode or curtailment of work or processes), directed by senior contractor or senior DOE management for

Group 4 - Facility Status			
Subgroup B Operations (CONTINUED)			
	noise, radon/thoron decay) should not be reported	event fell under another reporting criterion, then evacuation should be reported as well by noting multiple reporting criteria for the single occurrence.	safety reasons, and requiring a corrective action(s) prior to continuing operations.
			(7) 4 Any event or condition that would prevent immediate facility or offsite emergency response capabilities.

Group 4 - Facility Status			
Subgroup C Suspect/Counterfeit and Defective Items or Material [Note: Include the detailed information identified in Attachment 3.]			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
		(1) 3 Discovery of any suspect or counterfeit item or material found in a Safety Class or Safety Significant Structure, System, or Component (SSC).	(2) 4 Discovery of any other suspect or counterfeit item or material (i.e., not found in a Safety Class or Safety Significant Structure, System, or Component) that is found in any application whose failure could result in a loss of safety function, or present a hazard to public or worker health and safety.
			(3) 4 Discovery of any defective item or material, other than a suspect/counterfeit item or material, in any application whose failure could result in a loss of safety function, or present a hazard to public or worker health and safety.

Group 5 - Environmental			
Subgroup A Releases			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
		(1) *3 Any release (onsite or offsite) of a hazardous or extremely hazardous substance, including radionuclides from a DOE facility above federally permitted releases in a quantity equal to or exceeding the federal reportable quantities specified (See specifications in 40 CFR Part 302, *Designation, Reportable Quantities, and Notification*, 40 CFR Part 355, *Emergency Planning and Notification, and CERCLA Section 101(10), Federally Permitted Releases*.) [Note: See Group 1, Criterion 1, for situations under which releases of hazardous or extremely hazardous substances would be reported under —Operational Emergencies.]	(2) 4 Any release (onsite or offsite) of a pollutant from a DOE facility that is above levels or limits specified by outside agencies in a permit, license, or equivalent authorization, when reporting is required in a format other than routine periodic reports. [Note: See Group 1, Criterion 1, for situations under which releases of pollutants into the environment exceeding permit limits would be reported under —Operational Emergencies]
			(3) 4 Any release (onsite or offsite) that exceeds 100 gallons of oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. For operations involving oil field crude or condensate, any discharge that must be reported to outside agencies in a format other than routine periodic reports is reportable under this criterion. [Note: See Group 1, Criterion 1, for situations under which releases of oil would be reported under —Operational Emergencies.]

Group 5 – Environmental (Continued)			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
			(4) 4 Any discrete release of sulfur hexafluoride (SF6) due to an event or DOE operation equal to or exceeding 115 pounds (1,247 metric tons of CO2e according to 40 CFR Part 98, Subpart A, Table A-1, *Global Warming Potentials*) or 115 pounds more than the normal release quantity if the SF6 release is a common byproduct of the operation. [Note: For this criterion, discrete means the event or operation has defined start and stop points less than seven full days apart.]

Group 5 – Environmental Continued			
Subgroup B Ecological and Cultural Resources			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) 2 Any occurrence including releases causing significant impact to ecological or cultural resource for which DOE has responsibility under applicable laws, regulations, and Executive Orders. For example, extensive damage to, or destruction of: a) Ecologically preserved areas, or pristine or protected wetlands; b) Threatened or protected flora or fauna or critical habitats; c) Potable drinking water intake or well usage; or d) Historical/archeological sites.		
	(2) *2 Any occurrence, including releases, resulting in extensive environmental degradation (e.g., fish kill, notable loss or relocation of native species, need for interdiction of crop sales, or restriction to human access). [Note: See Group 1, Criterion 1, for situations under which occurrences affecting ecological or cultural resources would be reported under —Operational Emergencies.]		

Group 6 - Contamination/Radiation Control

Subgroup A Loss of Control of Radioactive Materials

[Note: Subgroup 6A criteria apply to bulk radioactive materials, sealed sources, and property containing radioactive materials, including discovered legacy radioactive materials, but do not apply to surface radioactive contamination on property. Surface radioactive contamination is addressed in Subgroup 6B.]

*** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***

Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) *2 Identification of radioactive material offsite due to DOE operations/activities that exceeds applicable DOE limits DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11).	(3) 3 Loss or unexpected discovery of radioactive material which exceeds 1 times and no greater than 100 times the values in 10 CFR Part 835, Appendix E (excluding consumer products such as smoke detectors, if they are handled in accordance with manufacturer's instructions) or loss of accountability of such material for more than 24 hours. The 24-hour time period begins when the loss of accountability is discovered and must include one business day. [Note: Legacy radioactive material discovered through a routine radiological monitoring program, compliant with 10 CFR 835 may be summarized in a single short form report, for example, on a quarterly basis. Each instance of legacy radioactive material must be identified in the report and contain the details required for reporting in accordance with this Order.]	
	(2) 2 Loss or unexpected discovery of radioactive material that exceeds 100 times the values in 10 CFR Part 835, *Occupational Radiation Protection*, Appendix E (excluding consumer products such as smoke detectors, if they are handled in accordance with manufacturer's instructions), or loss of accountability of such		

Group 6 - Contamination/Radiation Control

Subgroup A Loss of Control of Radioactive Materials (CONTINUED)

[Note: Subgroup 6A criteria apply to bulk radioactive materials, sealed sources, and property containing radioactive materials, including discovered legacy radioactive materials, but do not apply to surface radioactive contamination on property. Surface radioactive contamination is addressed in Subgroup 6B.]

*** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***

Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	material for more than 24 hours. The 24-hour time period begins when the loss of accountability is discovered and must include one business day		

Group 6 - Contamination/Radiation Control			
Subgroup B Spread of Radioactive Contamination *** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) *2 Identification of offsite radioactive contamination due to DOE operations/activities that exceeds applicable DOE-approved authorized limits (pursuant to DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11) or, if there are none, the total contamination values in 10 CFR Part 835, Appendix D. [Notes: a) Release or clearance of property containing or potentially containing residual radioactive material is subject to requirements in DOE O 458.1. Compliance with 10 CFR Part 835, Appendix D values does not necessarily satisfy the requirements in DOE O 458.1. b) The discovery of radioactive contamination from past DOE/NNSA operations that may have caused, is causing or may reasonably be expected to cause exposures exceeding protective action criteria may be reportable as an Operational Emergency under Group 1, Criterion 1.]	(3) 3 Identification of onsite radioactive contamination greater than 10 times and no greater than 100 times the total contamination values in 10 CFR Part 835, Appendix D, exclusive of footnote 3 to Appendix D, and that is found outside of the following locations: areas routinely posted, controlled and monitored for contamination, areas controlled in accordance with 10 CFR Attachment 2 DOE O 232.2 Page 16 8-30-11 Section 835.1102(c), and, per Section 835.604(a), any non-posted area that is under the continual observation and control of an individual knowledgeable of and empowered to implement required access and exposure control measures. For tritium, the reporting threshold is 10 times the removable contamination values in 10 CFR Part 835, Appendix D. [Notes: a) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits. b) This does not apply to legacy radioactive contamination, which is to be reported under a separate criterion below. c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established for a	(4) 4 Identification of onsite legacy radioactive contamination greater than 10 times the total contamination values in 10 CFR Part 835 Appendix D, exclusive of footnote 3 to Appendix D, and that is found outside of the following locations: areas routinely posted, controlled and monitored for contamination, and areas controlled in accordance with 10 CFR Section 835.1102(c), and, per Section 835.604(a), any non-posted area that is under the continual observation and control of an individual empowered to implement access and exposure control measures. For tritium, the reporting threshold is 10 times the removable contamination values in 10 CFR Part 835, Appendix D. [Notes: a) Legacy radioactive contamination is radioactive contamination resulting from historical operations that are unrelated to current activities. b) This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits. c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established for a Contamination Area, High Contamination Area or Airborne Radioactivity

		Contamination Area, High Contamination Area or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-2008. d) This reporting criterion does not apply to packages monitored in accordance with 10 CFR Section 835.405 that meet DOT contamination limits specified in 49 CFR Section 173.443(a).]	Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-2008. d) Legacy contamination identified through a routine radiological monitoring program, compliant with 10 CFR 835 may be summarized in a single short form report, for example, on a quarterly basis. Each instance of legacy contamination must be identified in the report and contain the details required for reporting in accordance with this Order.]
	(2) 2 Identification of onsite radioactive contamination greater than 100 times the total contamination values in 10 CFR Part 835 Appendix D, exclusive of footnote 3 to Appendix D, and that is found outside of the following locations: areas routinely posted, controlled and monitored for contamination, areas controlled in accordance with 10 CFR Section 835.1102(c), and, per Section 835.604(a), any non-posted area that is under the continual observation and control of an individual knowledgeable of and empowered to implement required access and exposure control measures. For tritium, the reporting threshold is 100 times the removable contamination values in 10 CFR Part 835, Appendix D. [Notes: a) This does not apply to surface contamination from residual radioactive material meeting applicable DOE-approved authorized		

	limits. b) This does not apply to legacy radioactive contamination, which is to be reported under a separate criterion below. c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established for a Contamination Area, High Contamination Area, or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-2008. d) The discovery of radioactive contamination from past DOE/NNSA operations that may have caused, is causing, or may reasonably be expected to cause uncontrolled personnel exposures exceeding protective action criteria may be reportable as an Operational Emergency under Group 1, Criterion 1.] (3) 3 Identification of onsite radioactive co		

Group 6 - Contamination/Radiation Control			
Subgroup B Spread of Radioactive Contamination *** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	b) This does not apply to legacy radioactive contamination, which is to be reported under a separate criterion below. c) The exclusion from reporting contamination in a Radiological Buffer Area applies only when the area has been established for a Contamination Area, High Contamination Area, or Airborne Radioactivity Area and its exit requirements have adopted guidance from Article 338.2 of DOE-STD-1098-2008. d) The discovery of radioactive contamination from past DOE/NNSA operations that may have caused, is causing, or may reasonably be expected to cause uncontrolled personnel exposures exceeding protective action criteria may be reportable as an Operational Emergency under Group 1, Criterion 1.] d) Legacy contamination identified through a routine radiological monitoring program, compliant with 10 CFR 835 may be summarized in a single short form report, for example, on a quarterly basis. Each instance of legacy contamination must be identified in the report and contain the details required for reporting in accordance with this Order.]		

Group 6 - Contamination/Radiation Control

Subgroup C Radiation Exposure

[Note: For all of Subgroup C, reportability should be determined promptly following an event, using field indicators when dosimetry results are not available. Quantitative dose estimates should only be reported using the site's established dosimetry, dose assessment, and modeling processes. Resulting confirmed dose estimates may overturn initial reportability determinations.]

*** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***

Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
(1) *1 Determination of a dose that exceeds the limits specified in 10 CFR Part 835, Subpart C, ―Occupational Radiation Protection‖ or in DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11, paragraph 4.b(1)(a) [paragraph 2.b(1)(a) of the CRD], ―Public Dose Limit.	(2) 2 Failure to provide the required monitoring for an exposure estimated to exceed the values for providing personnel dosimeters and bioassays as stated in 10 CFR Section 835.402(a) or 10 CFR Section 835.402(c).	(3) 3 Determination of a single occupational dose, attributable to an identified event that exceeds an expected dose by: (1) 500 mrem Committed Effective Dose (CED), or (2) the greater of 10 percent or 100-mrem effective dose due to external exposure	
		(4) 3 A radiological release that exceeds any limit contained in paragraphs 4.f.(2), 4.f.(5), 4.g.(4), 4.g.(5)(a), 4.g.(7), 4.g.(8)(a)4 or Attachment 2 DOE O 232.2 Page 18 8-30-11 4.i.(1) of DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11 or exceeds the 40 CFR Section 61.92 requirements.	

Group 6 - Contamination/Radiation Control			
Subgroup D Personnel Contamination *** Any event in this table requires notification to the Illinois Emergency Management Agency-Department of Nuclear Safety***			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) *2 Any occurrence requiring offsite medical assistance for contaminated personnel, including transporting a person with personnel or clothing contamination due to DOE operations/activities that exceeds 1 times the total contamination values in 10 CFR 835, Appendix D to an offsite medical facility or bringing offsite medical personnel onsite to perform treatment or decontamination.		(3) 4 Identification of onsite personnel or clothing contamination (excluding anti-contamination clothing provided by the site for radiological protection) that exceeds 10 times the total contamination values identified in 10 CFR Part 835, Appendix D. The contamination level must be based on direct measurement and not averaged over any area. This criterion does not apply to tritium contamination.
	(2) 2 Identification of offsite personnel or clothing contamination due to DOE operations/activities that exceeds 1 times the total contamination values in 10 CFR Part 835, Appendix D. For tritium, the reporting threshold is 1 times the removable contamination value found in 10 CFR Part 835, Appendix D.		

Group 7 - Nuclear Explosive Safety			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4

Group 8 – Packaging and Transportation			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) *2 Any offsite transportation incident involving hazardous materials that would require immediate notice pursuant to 49 CFR Section 171.15(b). [Note: Any occurrence involving an offsite DOE/NNSA shipment containing hazardous materials that causes the initial responders to initiate protective actions at locations beyond the immediate/affected area should also be reported as an Operational Emergency under Group 1, Criterion 1; Group 8 will be a secondary reporting criterion.]	(2) 3 Any deviation that would require a written report to the Nuclear Regulatory Commission (per 10 CFR Section 71.95) or to DOE HCO/NNSA CO (per DOE O 460.1C or DOE O 461.1B), namely: a) Instance in which there is a significant reduction in the effectiveness (as defined by the certificate holder) of any approved fissile or Type B packaging during use. b) Discovery of a defect with safety significance (as determined by the certificate holder) in a fissile or Type B packaging, after first use (by any shipper). c) Instance in which the conditions of approval in the Certificate of Compliance (or equivalent) were not performed in making a shipment.	(7) 4 Violation of applicable Hazardous Materials Regulations requirements for activities listed in 49 CFR Section 171.1(b) performed during the preparation of offsite hazardous materials shipments and discovered during shipment in commerce or at the receiving site.
		(3) *3 Any offsite ―accident‖ (per 49 CFR Section 390.5) involving a motor vehicle carrying DOE hazardous materials operating on a highway in interstate or intrastate commerce. [Note: Prompt notification is not required if the accident does not involve personnel injuries.]	(8) 4 Any onsite transfer of hazardous material, including radioactive material, whose quantity or nature (e.g., physical or chemical composition) is such that it is noncompliant with the receiving facilities Waste Acceptance Criteria (WAC) or other receipt requirements and the receiving organization's operations were significantly impacted or disrupted (e.g., material cannot be accepted, possessed, or stored at that facility; must be treated or repackaged to be accepted; or exceeds a license or permit limit).

Group 8 – Packaging and Transportation			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
		(4) 3 Any offsite transportation incident involving DOE hazardous materials that requires submission of a Hazardous Materials Incident Report on DOT Form F 5800.1 pursuant to 49 CFR Section 171.16	(9) 4 Unauthorized deviation from DOE instructions to commercial motor carriers for DOE hazardous materials shipments (e.g., designated route, prohibited route, designated time of the day).
		(5) 3 Any offsite transportation of hazardous material, including radioactive material, whose quantity or nature (e.g., physical or chemical composition) is such that it is noncompliant with the receiving facilities Waste Acceptance Criteria (WAC) or other receipt requirements and the receiving organization's operations were significantly impacted or disrupted (e.g., material cannot be accepted, possessed, or stored at that facility; must be treated or repackaged to be accepted; or exceeds a license or permit limit).	

Group 8 – Packaging and Transportation			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
		(6) 3 Any transportation activity for onsite transfer resulting in onsite release of radioactive materials, hazardous materials, hazardous substances, hazardous waste, or marine pollutants that is above permitted levels and exceeds the reportable quantities (RQ) specified in 40 CFR Section 302 or 40 CFR Section 355.	
		[Note: a) This occurrence may be reportable under Group 1, Criteria 2, 3, or 4. b) Any release of a quantity of hazardous materials greater than five (5) times the Reportable Quantity (RQ) specified for such material in 40 CFR § 302; of greater than 1,000 gallons (24 barrels) of oil to inland waters; or greater than 10,000 gallons (238 barrels) of oil to coastal waters should also be reported as an Operational Emergency under Group 1, Criterion 1; Group 8 will be a secondary reporting criteria.]	

Group 9 - Noncompliance Notifications			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
			(1) 4 Any written notification from an outside regulatory agency that a site/facility is considered to be in noncompliance with a schedule or requirement (e.g., Notice of Violation, Notice of Intent to Sue, Notice of Noncompliance, Warning Letter, Finding of Violation, Finding of Alleged Violation, Administrative Order, or equivalent notification or enforcement action). [Note: This criterion is not applicable to DOE Office of Enforcement actions.]
			(2) 4 Any packaging or transportation violation of regulations discovered by DOT during onsite inspections or Compliance Reviews results in fines greater than $5,000 or Unsatisfactory/Conditional Satisfactory ratings. [Note: Noncompliance occurrence reports are to be updated to reflect fines or penalties levied or corrective actions imposed by the outside regulatory agency upon final settlement of any enforcement action undertaken.]

Group 10 - Management Concerns and Issues			
Significance Category 1	Significance Category 2	Significance Category 3	Significance Category 4
	(1) 2 Any event resulting in the initiation of a Federal Accident Investigation Board, as categorized by DOE O 225.1B, *Accident Investigation*. [Note: This reporting criterion may raise the significance category of an occurrence already reported under separate criteria. Multiple reporting criteria should be assigned, when appropriate.]	(3) 1-3† A near miss to an otherwise ORPS reportable event, where something physically happened that was unexpected or unintended, or where no or only one barrier prevented an event from having a reportable consequence. . The significance category assigned to the near miss must be based on an evaluation of the potential risks and extent of personnel exposure to the hazard. [† Note: Follow the Prompt Notification requirements identified in the Occurrence Reporting Model	(4) *4 Any occurrence that may result in a significant concern by affected state, tribal, or local officials, press, or general population; that could damage the credibility of the Department; or that may result in inquiries to Headquarters.
(2) 1-4† An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern for that facility or other facilities or activities in the DOE complex. The significance category assigned to the management concern should be based on an evaluation of the potential risks and impact on safe operations. [† Note: Follow the Prompt Notification requirements identified in the Occurrence Reporting Model			(5) *4 Any occurrence of such significant immediate interest to offsite personnel and organizations that it warrants prompt notification to the DOE HQ OC, and which is not already designated elsewhere in this set of reporting criteria to have prompt notification [denoted by having an asterisk (*) next to the significance category].

6.2 Notification and Reporting Requirements

Significance Category	Timelines*	Prompt Notification	Final Report Approval
Operational Emergencies (defined by DOE O 151.1C)+	Categorize: ASAP Prompt Notification: 30 min (15 min if further classified) Written Notification: COB next business day not to exceed 90 hrs Final Report: 45 calendar days	To Facility Representative (FR) and DOE Headquarters Operations (HQ) Center	By Facility Representative and Program Manager
Significance Category 1	Categorize: 2 hrs Prompt Notification: 2 hrs Written Notification: COB next business day not to exceed 90 hrs Final Report: 45 calendar days	To FR and DOE HQ Center	By Facility Representative and Program Manager
Significance Category R	Categorize: Time of SC R determination Written Notification: COB 2 business days Final Report: 45 calendar days	By Facility Representative	By Facility Manager (local/program option for Facility Representative)
Significance Category 2	Categorize: 2 hrs Prompt Notification: 2 hrs Written Notification: COB next business day Final Report: 45 calendar days	To FR (When required, DOE HQ Center)†	By Facility Representative
Significance Category 3	Categorize: 2 hrs Prompt Notification: 2 hrs Written Notification: COB 2 business days Final Report: 45 calendar days	To FR (When required, DOE HQ Center)†	By Facility Manager (local/program option for Facility Representative)
Significance Category 4	Categorize: 2 hrs Prompt Notification: 2 hrs (as required) Short Form Report: COB 2 business days	When required, to FR and DOE HQ Center†	Per local procedures

+ Categorization and Prompt Notification requirements are in accordance with DOE O 151.1C, Emergency Management

***** Categorization Time is from Discovery Date and Time. Prompt Notification is from Categorization Date and Time. Written Notification is from Categorization date and Time.

† Specific Significance Category 2, 3, and 4 occurrences (identified with an asterisk in Attachment 2, Reporting Criteria) also require Prompt Notification to the DOE HQ EOC.

Safeguards and security events are not reported in ORPS unless they involve other consequences that

meet the ORPS reporting criteria presented herein. This Order does not absolve the cognizant parties from making required reports to other agencies.

6.3 Occurrence Report Preparation

Notification, Update, and Final Reports must be written clearly and concisely so the general reader can understand the basic ―who, what, when, where, how of the event; the safety issues involved; and the actions taken. The following instructions apply:

1. Subject or Title of Occurrence and the first paragraph of the Description of Occurrence must relay the essential nature of the event (i.e., a summary of the occurrence in newspaper style). Subsequent paragraphs must contain the background and description of the event at a sufficient level of detail for the reader to understand what happened and the resulting consequences and actions.

2. Final Reports must contain the significance, nature, and extent of the event or condition if this information is not already in the Notification or Update Report.

3. Final Reports must contain the causes of the event or condition (including the root cause, as required) using the codes provided in the Causal Analysis Tree.

4. Final reports must also include the immediate actions taken (if not already in the Notification Report), the corrective action(s) to be taken, and any lessons learned developed for the event, as required by the Occurrence Reporting Model.

5. Reports on suspect/counterfeit and defective items or material, must provide the manufacturer/supplier/vendor (including a contact, phone number, and website), the model and part numbers, the quantity found, why the item/material is suspect/counterfeit or defective, and how the item/material is being used. Reports must also include the method of detection (i.e., receipt inspection, craft inspection prior to installation, in-service inspection, or failure) and identify any resulting consequences, along with any photos via hyperlink, as appropriate.

6. Reports must quantify the level of contamination, dose, exposure, release, and damage (e.g., estimate the acres of wild land burned) when possible, instead of merely stating a reportable limit was exceeded.

7. Photos, sketches, drawings, and witness statement interview notes must be maintained with the occurrence report record when appropriate for clarification. In addition, sites are encouraged, but not required, to make photos, sketches, and drawings available via a Webpage, with the Webpage address included in the ORPS report.

Security Requirements

Occurrence reports involving incidents of counterintelligence concern (e.g., foreign persons, governments, organizations, entities or influence) must not be entered or referenced in the ORPS database.

6.4 Instructions to Complete ORPS Report Template

NOTIFICATION REPORT

Items 1 through 13, 16 though 20, 22, 23, 26 through 28, and 32 of the Occurrence Report are required fields for the Notification Report.Items 1-12 will be either computer generated or completed by the Facility Manager during data entry. In the Notification Report, additional fields may be required depending on the circumstances (e.g., Items 14 and 15). For all reports, data may be entered in the remaining fields when known.

UPDATE AND FINAL REPORT

For the Update and Final Reports, information on the Notification Report should be retained and updated as better and additional information becomes available. The Facility Representative and Program Manager may provide comments in Items 38 and 39, respectively, for all reports, except reports that have already been finalized

NOTE

ANY QUESTIONS CONTACT THE ESH ORPS MANAGER

NOTE

ORPS REPORT TEMPLATE FORMAT INSTRUCTIONS

Reporting Fields
D/S/C- Darkened fields will be completed by the ESH ORPS Manager

Field Name	Instructions
Facility/Personnel Information	
1. Occurrence Report Number	The occurrence report number is automatically generated by the system. It consists of the following: • DOE Field Office • Area Office (if applicable) • DOE contractor • Facility • Calendar Year the occurrence was first reported • Sequential number of the occurrence by facility Items are separated from each other by a dash. A temporary number is assigned when a Notification Report is first created. When the Notification Report is successfully transmitted, a permanent number will be automatically generated by the ORPS system, and may not be modified.
2. Facility Name	Select the Facility Name from the drop-down menu.
3. Facility Function Code	Select the Facility Function code from the drop-down menu that best describes the activity/function performed at the facility selected. Only one selection is allowed.
4. Site Name	This field is automatically generated by the system, and indicates the logged users' site. This field may not be modified.
5. Manager/Designee	Enter the name, title, and phone number of the responsible facility manager or designee who approved this report, either by personally transmitting the electronic report or by signing the hard copy report. This field is required for all reports.
6. Manager Phone	Enter a telephone number, including area code, for this person. Telephone number format is AAAPPPNNNN, where AAA is the area code, PPP is the prefix, and NNNN is the number. This field is required for all reports.
7. Job Title	Enter the specific job title of the Manager/Designee.
8. Originator/Transmitter	This field is automatically generated by the system, and displays the user ID of the logged in user.
9. Originator Phone	This field is automatically generated by the system, and displays the telephone number of the logged in user.
10. Originator/Title	This field is automatically generated by the system, and displays the title of the logged in user.
11. Division/Project	Identify the project or the contractor organization responsible for the facility at which the occurrence took place. This field is required for all reports.
12. Secretarial Office	Select the DOE Secretarial/Power Administration Office to which

Field Name	Instructions
	this facility is operationally responsible from the drop-down menu. SC - Science Only one Secretarial Office/Power Administration may be selected. This field is required for all reports.
13. System/Building/ Equipment	Identify all systems, equipment, or structural items involved in the occurrence, as applicable. In addition, in the case of component failures or defective parts or materials, provide such information as the manufacturer, model number, and size. The most significant item(s) should be listed here. Additional information can be provided in the Description of Occurrence.
14. Authorized Classifier/ Reviewing Official	Enter the name of the authorized classifier who reviewed this report and determined that it was unclassified, or the name of the reviewing official who determined that there was no Unclassified Controlled Nuclear Information (UCNI) or other controlled information included in the report. Classified, UCNI, and controlled information MUST NOT be transmitted to ORPS. For reports containing classified, UCNI, or controlled information, a sanitized version of the report shall be submitted to ORPS. This field is required for all reports.
15. Classification Date	Enter the date when the authorized classifier or reviewing official reviewed this report and determined that it was appropriate for entry into ORPS. The date must be entered in MM/DD/YYYY format. This field is required for all reports.
16. UCNI	When required and when appropriate UCNI guidance is available, a reviewing official needs to make a final determination that the report contains (enter "Y" for Yes) or does not contain (enter "N" for No) UCNI. Where appropriate guidance is not available, a reviewing official should make a preliminary review determination that the report may contain UCNI (enter "Y" for Yes) or does not contain UCNI (enter "N" for No). Reports with UCNI = Y can not be transmitted to the database.
17. Plant Area	Indicate the name of the site-specific plant area (e.g., F-Area, M-Area) where the occurrence took place. This field is required for all reports.
Important Date and Time Information	
18. Discovered Date/Time	Enter the date and time when the facility **staff** discovered the event or condition being reported. Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996 The time format is military time: hhmm, These fields are required for all reports.
19. Categorized Date/Time	Enter the date and time when the Facility Manager determined that the event or condition constituted a Reportable Occurrence and

Field Name	Instructions
	determined its category (Significance Category OE or 1-4). Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996 The time format is military time: hhmm. These fields are required for all reports.
Occurrence Description	
20. Subject/Title of Occurrence	Enter a brief title or description (140 characters or less) that best details the nature, cause, and result of the occurrence. This field is required for all reports.
21. Reporting Criteria	Select one or more Reporting Criterion/Criteria as discussed in Section 6 of DOE Manual 231.1-2. **All of the specific reporting criteria applicable for an occurrence should be identified.** NOTE: The Significance Category field will contain the highest significance category associated with the selected criteria. For example, if criteria with significance categories 4, 3, and 1 were selected, then the significance category would be 1.
22. Significance Category	This field is automatically assigned by the system and is dependent on the Reporting Criterion/Criteria. Significance Categories include OE (emergency), 1, R, 2, 3, and 4, with OE being the most significant and 4 the least significant.
23. Recurring Event	If this is a recurring event, check this box. Otherwise leave it blank. .
24. Subcontractor Involved	If a subcontractor is involved in this occurrence, choose *Yes*. Otherwise choose *No*. If *Yes* is selected, enter the name of the subcontractor(s). This field is required for all reports.
25. Description of Occurrence	The following instructions should be followed when entering the description of the occurrence: a. The first paragraph of the Occurrence Description should relay the essential nature of the event (i.e., a summary of the occurrence in newspaper style). b. All information should be clear and succinct. c. Complex and more significant occurrences should warrant a greater level of detail. Significance Category 4 occurrences would likely need only a short paragraph under Occurrence Description. However, all reports should present enough information so that the general reader understands why the event needs to be reported and what the effect is. d. Avoid jargon and uncommon or site/facility-specific abbreviations and acronyms. e. Unless necessary to record and explain the event (e.g., suspect/counterfeit items or material), use general descriptions of equipment, procedures, etc., rather than presenting lengthy detailed titles and the numbers and letters assigned to those items.

Field Name	Instructions
	f. Quantify the level of contamination, dose, release, and damage (e.g., estimate the acres of wild land burned) when possible, instead of merely stating a reportable limit was exceeded. g. Use active rather than passive voice whenever possible. For example, write, "***The electrician*** severed the conduit" rather than "the conduit was severed." The type of information to be provided in the description includes, but is not limited to, the following: • The method of discovery; • Any component failures and the failure mode; • Any personnel errors involved, including the type and result of the error; • Any procedural problem encountered; • The response of any automatic or manual safety systems and the signals which initiated and terminated their operation; • The duration of any failures; • Operator actions that affected the course of events; and • The loss of any safety equipment. When appropriate for clarification, photos, sketches, and drawings should be maintained with the occurrence report record. In addition, sites are encouraged but not required to make photos, sketches, and drawings available via a Web page, with the Web page address included as a hyperlink in the ORPS report. For recurring events, include all pertinent information to describe how the event was determined to be recurring. This field is required for all reports.
Notifications Made	
26. DOE HQ OC Notifications	Enter the date and time when the DOE HQ Operations Center was notified and the name and organization of the person notified. Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996 The time format is military time: hhmm, with midnight represented as 0000 on the second day. These fields are required for all reports that are categorized as Operational Emergencies and Significance Category 1 occurrences. The field is also required for Significance Category 2 occurrences as directed by the Field Office. In addition, the field is required for specific Significance Category 2, 3, and 4 occurrences identified with an asterisk next to the reporting criterion.
27. Other Notifications	Enter the dates(s) and time(s) of notification of state and local

Field Name	Instructions
	officials or other agencies and the name(s) and organization(s) of the individual(s) notified. Additional information can be provided in the Immediate Actions Taken field. Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996 The time format is military time: hhmm,
Facility Information at Time of Occurrence	
28. Operating Conditions	Describe the operational status of the facility or equipment at the time of the occurrence including, for example, pertinent temperatures, pressures, or other parameters necessary for evaluation of the occurrence and its consequences. If said information is not applicable, enter "Does not apply". This field is required for all reports.
29. Activity Category	Select the activity that best describes the ongoing activity at the time of the occurrence. This field is required for all reports. 01 - Construction 02 - Maintenance 03 - Normal Operations (other than Activities specifically listed in this Category) 04 - Start-up 05 - Shutdown 06 - Facility/System/Equipment Testing 07 - Training 08 - Transportation (For search only) 08A - Transportation Onsite 08B - Transportation Offsite 09 - Emergency Response 10 - Inspection/Monitoring 11 - Facility Decontamination/Decommissioning 12 - Research
30. Immediate Actions Taken	Describe the immediate or remedial actions taken to return the facility, system, or equipment item to service; to correct or alleviate the anomalous condition; and to record the results of those actions. These may include temporary measures to keep the facility in a safe standby condition or to permit continued operation of the facility without compromising safety until a more thorough investigation or permanent solution can be affected. This field is required for all reports.
6.3 **Cause Information**	
31. Causes Refer to Causal Analysis Tree- last page this document.	Select **all of the codes** from the Causal Analysis Tree that best represent the causes of the occurrence. If you select A3 (Human Factors) as the Cause Code, select any associated causes (couplets) from the couplet selection list or choose a better couplet for the associated occurrence. This field is required for Final reports and optional for Short Form Reports.
32. Description of Cause	Discuss the causes of the occurrence to include all causes and the corrective actions identified, including causal analysis contributing to a recurring event. Do not repeat a description of the occurrence, but discuss the results of the causal analysis. The root cause analysis methodology used should be identified. A detailed description of the corrective actions is required to demonstrate that the identified actions will adequately address the cause(s) of the problem. This

Field Name	Instructions
	field is required for all Final reports, except Short Form Reports.
Evaluations	
33. Evaluation by Facility Manager	With the information available, the Facility Manager should provide his or her evaluation of the occurrence and its effect or possible effect on the plant, system, program, etc. The Facility Manager may later supplement this evaluation with additional entries in Update reports or in the Update/Final report. This field is required for all Notification reports where "Further Evaluation Required" is "Yes" and "Before Further Operation" is "Yes". It is also required for all Update and Final reports, but it is optional for Short Form Reports.
34. Further Evaluation Required	If this occurrence will require further evaluation, choose "Yes". Otherwise choose "No". For Cancelled and Update/Final Reports, "Further Evaluation Required" should be "No". This field is required for Notification, Update, Final, and Short Form Reports. If further evaluation is required, specify if this occurrence will require further evaluation before further operation. For Cancelled and Update/Final Reports, "Before Further Operation?" should be "No". This field is required for all reports where "Further Evaluation Required" is "Yes". If further evaluation is required before further operation, enter the name of the person who will perform further evaluation on this occurrence and the date when the further evaluation will be completed. Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996 These fields are required for all reports where "Further Evaluation Required" is "Yes" and "Before Further Operation" is "Yes".
Deficiencies, Lessons Learned, and Corrective Actions	
35. Integrated Safety Management (ISM)	Enter one or more ISM codes from the following list to identify an observed weakness (es) in the facility's implementation of the ISM program (e.g., failure to properly define the work scope, or failure to perform an adequate activity level hazards analysis). Available ISM codes are: 1 – Define Scope of Work - Missions are translated into work, expectations are set, tasks are identified and prioritized, and resources are allocated. 2 – Analyze the Hazards - Hazards are associated with the work identified, analyzed, and categorized. 3 – Develop and Implement Hazard Controls - Applicable standards and requirements are identified and agreed-upon, controls to prevent/mitigate hazards are identified, the safety envelope is established, and controls are implemented. 4 – Perform Work Within Controls - Readiness is confirmed and work is performed safely. 5 – Provide Feedback and Continuous Improvement - Feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted, and, if necessary, regulatory enforcement actions occur. 6 – N/A (Not applicable to ISM Core Functions as determined by

Field Name	Instructions
	management review) - Items that do not fall into the realm of ISM Core Functions; e.g., Natural Phenomena, Wild Fires, Counterfeit/Suspect Parts, Notifications of non-compliance (Federal, State, Local), Legacy Issues that could not have been anticipated, End of Life equipment failures where maintenance is not an issue, etc. **This field is required for all Final reports**,
36. Lessons Learned	Describe what lessons can be learned from this occurrence, in order to help prevent similar events from happening. **This field is required for Final reports**
37. Similar Occurrence Reports	Indicate by their report numbers any similar occurrence(s) of which you are aware for this facility or other facilities, including similar occurrences contributing to a recurring event. A discussion describing the analysis of similar occurrence reports should be included in Field 30 or Field 31, as appropriate. Also, identify any known commercial reactor Licensee Event Reports (LER) or other related documents that describe similar occurrences. The purpose of this item is to identify, if recognized, occurrences that might suggest a generic problem. It also serves to identify generic problems that may result in single or common lessons learned. This field is required for Final reports and optional for Short Form Reports.
38. User Defined Fields (two of them)	These optional fields can be used to store facility-specific information (e.g., a cross-reference to performance indicator data or a site-specific number or name). They cannot exceed 124 characters in length for each field.
39. Corrective Actions	A facility may choose to use ORPS or its own local corrective action system to track and close out corrective actions (CA). However, in either case, enter a complete description of the CA and the target date when completion of the CA is anticipated. A complete list of corrective actions should be included in the report to ensure it can stand on its own (i.e., reviewers do not have to search for other reports, etc). For facilities using ORPS to track and closeout the corrective actions, the Actual Completion date is entered when the CA is completed and closed. For facilities that choose to use their local CA tracking systems, the Actual Completion Date is not required. However, the reference number of the CA stored in the local corrective action tracking system needs to be entered. All CA items entered in ORPS with local CA reference numbers are considered closed. Corrective Actions are required for Final reports and optional for Short Form Reports.
Line Management Comments	
40. Facility Representative Comments	The Facility Representative or designee can provide his or her evaluation of the occurrence, including an evaluation of the initial and proposed corrective actions and any follow-up by the facility personnel, and can describe any other actions that DOE has taken since the occurrence. The Facility Representative may supplement such information with subsequent additional entries, as appropriate. After completing the input, the Facility Representative's name and date will be automatically entered by ORPS. If a Final Report is being rejected, the Facility Representative should use this space to

Field Name	Instructions
	indicate why. This field is optional on all occurrence report types except for reports that are already Final, including Short Form Reports. This field is required only on Final Reports rejected by the Facility Representative.
41. Program Manager Comments	The Program Manager or designee can provide his or her evaluation of the occurrence, including an evaluation of the initial and proposed corrective actions and any follow-up, and can describe any other actions that DOE has taken since the occurrence. The Program Manager may include additional information, as appropriate. After completing the input, the Program Manager's name and date will be automatically entered by ORPS. If a Final Report is being rejected, the Program Manager should use this space to indicate why. This field is optional on all occurrence report types except for reports that are already Final, including Short Form Reports. This field is required only on Final Reports rejected by the Program Manager.

ORPS REPORT TEMPLATE FORMAT

D/S/C DARKENED BLOCKS WILL BE COMPLETED BY THE ESH ORPS MANAGER

TEMPLATE

* required for all reports # required under certain conditions

Guidance to Division/Section's :

Use the guidelines as described above, use as much space as required

Use of this form is NOT required ONLY the FIELD NAMES

Field Name	Instructions
6.4 **Facility/Personnel Information**	
1. Occurrence Report Number	
2. Facility Name	
3. Facility Function Code	
4. Site Name	
5. Manager/Designee	
6. Manager Phone	
7. Job Title	
8. Originator/Transmitter	
9. Originator Phone	
10. Originator/Title	
11. Division/Project	
12. Secretarial Office	
13. System/Building/Equipment	
14. Authorized Classifier/ Reviewing Official	
15. Classification Date	
16. UCNI	
17. Plant Area	
Important Date and Time Information	
18. Discovered Date/Time	
19. Categorized Date/Time	
Occurrence Description	
20. Subject Title of Occurrence	
21. Reporting Criteria	
22. Significance Category	
23. Recurring Event	.
24. Subcontractor Involved	

Field Name	Instructions
25. Description of Occurrence	
Notifications Made	
26. DOE HQ OC Notifications	
27. Other Notifications	
Facility Information at Time of Occurrence	
28. Operating Conditions	
29. Activity Category	
30. Immediate Actions Taken	.
Cause Information	
31. Causes	
32. Description of Cause	
Evaluations	
33. Evaluation by Facility Manager	
34. Further Evaluation Required	
Deficiencies, Lessons Learned, and Corrective Actions	
35. Integrated Safety Management (ISM)	
36. Lessons Learned	
37. Similar Occurrence Reports	
38. User Defined Fields (two of them)	
39. Corrective Actions	
Line Management Comments	
40. Facility Representative Comments	
41. Program Manager Comments	

6.5 ORPS INFORMATION and APPROVAL ROUTING

Once the decision has been made to classify the events as ORPS reportable the following information flow and approval routing will be required.

Initial Report

Division/Section provides to the ESH ORPS Manager or Designee a written input utilizing the Notification Form Instructions 3010-2 and the Notification Form 3010-3 and the designated fields to convey the necessary information.

ESH ORPS Manager or designee inputs data into the on-line DOE ORPS database saves and prints document.

ESH ORPS Manager or designee will attach the FNAL/FSO signature sheet to the document.

ESH ORPS Manager or designee hand carries the report to the DOE-FSO representative that is the liaison to the division/section reporting the ORPS event. If the representative is not present, then the most senior DOE-FSO person will be solicited to review this document.

The DOE FSO representative will review the document and may provide comment. Comments are placed into the database and the ESH ORPS Manager or designee reprints the document. DOE FSO representative will then sign the signature sheet.

The document will be hand carried to the Chief Operating Officer. The COO will review the document and may provide comment. Any comments/changes will be placed into the database and the document is reprinted. The Chief Operating Officer will then sign the signature sheet.

During this time period DOE-FSO will be preparing an advance memo for the Head of the Office of Science on the events of this ORPS. Only after receiving CONFIRMATION that this memo has been sent by FSO to the DOE HQ Science will any further action proceed.

Once it is confirmed that the memo has been sent by the FSO, the ESH ORPS Manager or designee will then access the ORPS database and select the validate report option, Validate the Report. As necessary rectify any issues, followed by submitting the report. Submission of the notification report to DOE has been completed.

FNAL Posting of ORPS

At this time the ESH ORPS Manager, accessing the ORPS database will access the on-line report. A copy will be printed to indicate the date, time and the formal submission of the document; it will then be attached to the signature page of the approved draft. Paper copy is to be made for the ORPS Journal maintained by the EHS ORPS Manager and an electronic copy forwarded to the ESH Admin staff for posting under the current year ORPS folder.

Update and Final Report

The process of updating or finalizing an initial report will follow the same process as in the initial submission. D/S/C will provide updated information that will be placed into the on-line initial report by the ESH ORPS Manager or Designee. All edits will be retained using the "Save" function, placing everything into a draft format and not formally as part of the report. A copy of the updated report will be printed and as described in the Initial Report Section be walked through channels for approval. Only after the review and approval of both FSO and the Director will the update or final report be submitted to DOE HQ.

The final ORPS will be accessed by the ESH ORPS Manager or designee and provided to the ESH Admin staff to replace the initial ORPS that is currently posted on the ESH website.

Corrective Actions

It is possible that an ORPS report will be finalized in which the investigation and fact finding has been completed without having all the findings closed. As findings are completed, the ESH ORPS Manager or designee will enter the ORPS Database through the Facility Manager portal to close out the findings. D/S SSO's will need to provide to the ESH ORPS Manager, at a minimum in an email format, the following information. The corrective action title, the date the corrective action was completed, and what actions were taken as soon as the corrective action has occurred.

This is in order to close out open findings in the DOE ORPS database, which is screen on a regular basis for irregularities in reporting, past due corrective actions, delays in posting and other audit items.

6.6 ORPS Security Incident Identification and Reporting Requirements

GENERAL

a. Each Incident of Security Concern (IOSC) with the exception of incidents of Management Interest (MI) (see section 2 c. (2)) requires categorization, an initial report, an inquiry, and a closure report. The level of effort associated with the latter three steps is graded based on the incident category and the factors (severity, asset, etc.) surrounding the incident.

b. Initial and final reporting is imperative as the DOE/NNSA CSO has specific responsibilities for notifying and/or coordinating with other agencies, governments, Departmental leadership, and Congress for select incidents.

c. All information generated as part of this process must be protected according to its sensitivity and/or classification determination.

d. Security incidents include a range of possible actions, inactions, or events that:

(1) Pose threats to national security interests and/or Departmental assets;
(2) Create potentially serious or dangerous security situations;
(3) Have a significant effect on the S&S Program's capability to protect DOE S&S interests;
(4) Indicate the failure to adhere to security procedures; or
(5) Illustrate the system is not functioning as designed by identifying and/or mitigating potential threats (e.g., detecting suspicious activity, hostile acts, etc.).

INCIDENT IDENTIFICATION AND CATEGORIZATION.
DOE uses a graded approach for the identification and categorization of IOSCs. This approach provides a framework for the requirements of reporting timelines and the level of detail for inquiries into, and root cause analysis of, specific security incidents. By establishing a graded approach, line management can effectively allocate the resources necessary to implement this policy.

a. All IOSCs must be categorized by significance level and type. As Table 1 illustrates, there are two levels of significance and three types of incidents.

Table 1. Significance Levels and Incident Types

SIGNIFICANCE LEVEL CATAGORY	
A	**B**
INCIDENT TYPE	
SECURITY INTEREST (SI)	**SECURITY INTEREST (SI)**
MANAGEMENT INTEREST (MI)	**MANAGEMENT INTEREST (MI)**
PROCEDURAL INTEREST (PI)	**PROCEDURAL INTEREST (PI)**

b. Incident Significance Level Categories.

(1) Category A incidents, which meet a designated level of significance relative to the potential impact on the Department and/or national security, require the notification of the DOE/NNSA CSO and the contractor CSO.
The involvement of the DOE/NNSA CSO for Category A incidents is imperative for assessing impacts, coordinating with external agencies, and/or notifying senior management.

(2) Category B incidents, which do not meet the Category A criteria, are managed and resolved by the contractor CSO; however, this does not preclude the DOE/NNSA CSO from exercising its oversight responsibilities. The monitoring of Category B incidents by the contractor CSO is essential as it allows management to proactively address reoccurring incidents, thereby minimizing the occurrence of potentially more significant incidents.

c. Incident Types

(1) Security Interest (SI). This type of incident involves the loss, theft, compromise, or suspected compromise of Departmental assets

(2) Management Interest (MI). This type of incident does not necessarily involve Departmental assets but is a unique type of incident that may have potential undesirable impacts. MI incidents therefore warrant management notification. MI incidents differ from SI and Procedural Interest (PI) incidents in that the emphasis is on notification; therefore, MI incidents do not require formal inquiry, closure, etc.

(3) Procedural Interest (PI). This type of incident is associated with the failure to adhere to security procedures, and all evidence surrounding the incident suggests the asset was not compromised or the likelihood of compromise is remote.

d. Incident Criteria. Based on the three types of incidents, the following provides a general framework for distinguishing between Category A and B incidents.

(1) SI.

(a) Category A - SI incidents involve the following assets:

- SNM and nuclear material (note that "Loss" does not include quantities that are within established shipping, processing, and inventory limits);
- All classified matter;
- As one involving quantities of radiological, chemical, and/or biological materials that if misused could endanger the public;
- Security key or keycard based on the significance of the asset being protected and the degree of access provided by the key or keycard (e.g., direct access versus access impeded by other layers/measures);

- Protective force firearms, ammunition, explosives, and equipment per the reporting requirements in DOE M 470.4-3A, *Contractor Protective Force*, dated 11-05-06, and other equipment documented in the site IOSC program plan;

- DOE security badge determined to be the target of the theft;

- Matter of a foreign government that requires reporting based on established agreements and required protocols; or

- Other assets determined by the DOE/NNSA CSO and/or contractor CSO.

(b) Category B SI incidents involve the following assets:

- Official Use Only (Ex 2); Official Use Only/Export Controlled Information (Ex 2 or 3); Unclassified Controlled Nuclear Information; Naval Nuclear Propulsion Information; and

- Other assets as determined by the DOE/NNSA CSO and/or contractor CSO.

(2) MI

(a) Category A MI incidents are significant enough to warrant notification to the DOE/NNSA CSO. Examples include work stoppages, arrest of an employee enrolled in a human reliability program, etc. Incidents constituting or determined to be a Category A MI must be specified in the IOSC program plan.

(b) Category B MI incidents require notification to the contractor CSO. Incidents constituting or determined to be a Category B MI must be specified in the IOSC program plan.

(3) PI

(a) Category A PI incidents are associated with the failure to adhere to security procedures and warrant notification to the DOE/NNSA CSO. An example of a Category A PI incident is an unauthorized discharge and other incidents determined by the DOE/NNSA CSO and/or Contractor CSO.

(b) Category B PI incidents do not result in the loss, theft, compromise or suspected compromise of the asset. These incidents are supported by evidence that suggest the likelihood of compromise is remote or that compromise did not occur. An example of a Category B PI incident would be the improper handling, and/or storage of classified matter, where the supporting evidence suggests compromise did not occur or the likelihood was remote.

PRELIMINARY INQUIRY, CATEGORIZATION, AND REPORTING REQUIREMENTS.

a. The preliminary inquiry and categorization is based on the subject policy and any additional criteria as documented in the site IOSC program plan. Preliminary reporting and categorization specifications include:

- The "clock starts" when a potential incident is brought to the attention of management. At that point, the site has a maximum of 5 calendar days to conduct the preliminary inquiry, to make the initial categorization, and to perform the initial notification(s).

- Although a maximum of 5 calendar days are provided, sites are required to report the incident as soon as the incident is categorized. The 5 day period provides flexibility for those incidents requiring additional fact gathering such as classification review or an inventory check to locate a potentially lost/missing item.

- If there is still uncertainty at the 5 calendar day mark, with respect to incident categorization, the incident must be reported as a Category A pending completion of the inquiry process. If the final inquiry reveals additional details and facts, the incident can be re-categorized.

- Each security incident must be assigned a unique local site tracking number

- The main emphasis for MI incidents is on notification; therefore, the subsequent section dealing with inquiries and closure reports is not applicable to this specific type of incident (unless additional information is requested by the CSO).

b. Category A Preliminary Reporting Requirements.

- The DOE/NNSA CSO must be notified of all Category A incidents.

- The site IOSC program plan must contain the notification content and process to include the personnel and organizations identified for notification and any additional and/or specific notification requirements.

- If the incident involves classified matter, the Departmental element with programmatic responsibility for the information must be identified

  Notification must include whether origination was by another agency or foreign government and a description of the compromised or suspected compromised information. See "Incident Closure" in this section for additional content considerations for the initial report.

- If the site determines that an incident involves the loss, theft, compromise, or suspected compromise of Top Secret, SCI, SAP, and RD Nuclear Weapon Data, the designee(s) or element with programmatic responsibility of the information must review the incident and render two additional determinations.

  (a) If it is determined that the incident meets the significant nuclear defense intelligence loss criteria, the appropriate Federal entity(s) after consultation with the Director, Central Intelligence, and the Director, FBI must provide notification to Congress. The notification to Congress must occur within 30 days of categorizing the event as a 50 U.S.C. Section 2656 reportable incident.

  (b) The element with programmatic responsibility for the information must also determine if the incident warrants a damage assessment.

  Damage assessments are normally conducted for Top Secret, SCI, SAP, and RD Nuclear Weapon Data classified information; however, they can also be performed for other incidents involving other levels and categories of classified information. In addition to the specific information compromised or suspected of compromise, other considerations for conducting a damage assessment are, but not limited to, if the incident is associated with a violation of law, if the information was compromised to a wide audience, etc.

  (c) Category B Preliminary Reporting Requirements. While notification and reporting of Category B incidents does not extend beyond the contractor CSO, the approved site IOSC program plan must document the internal notification process.

  Reporting to Cognizant Personnel Security Offices. IOSCs, regardless of category, may impact an individual's eligibility for access to classified information. Therefore, upon closure, the outcome of the inquiry for all security incidents regarding individuals applying for or holding a DOE security clearance must be reported to the personnel security office with cognizance over the individual's access eligibility.

  (d) Reporting Incidents Associated with Sensitive Programs. IOSCs involving activities associated with sensitive programs must follow the same initial reporting process but may omit details because of programmatic controls. These programs include the SCI Program, SAP Program, the Technical Surveillance Countermeasures (TSCM) Program, the Counterintelligence (CI) Program, or other programs identified by the appropriate Federal designee(s). All subsequent reporting must be handled within the programmatic channels until the inquiry report has been closed within the sensitive program.

(e) Other Multi-Program Reporting. An event that meets the criteria for reporting as an IOSC does not negate the responsibility to report through other related reporting chains such as (but not limited to):

(1) Per DOE O 231.1A, chg 1, *Environment, Safety, and Health Reporting*, 6-3-04, security incidents that affect both safety and security are reportable through the Occurrence Reporting Processing System (ORPS).

(2) Per DOE O 151.1C, *Comprehensive Emergency Management System*, dated 11-2-05, security incidents that are reportable under the provisions of DOE O 151.1C must continue to be reported in accordance with that Order and this Attachment.

(3) Incidents involving personally identifiable information (PII), both electronic and hardcopy, must be reported to the Office of Chief Information Officer in accordance with DOE O 206.1, *Department of Energy Privacy Program*, dated 1-16-09.

(4) NNSA "Flash Reporting" procedures are not affected by requirements in this section.

(5) Per DOE O 475.1, *Counterintelligence Program*, dated 12-10-04, the geographically closest element of the Office of Counterintelligence/Office of Defense Nuclear Counterintelligence must be notified of security incidents involving any credible information that a non-U.S. citizen or an agent of a foreign power is involved or that there are indications of deliberate compromise from a U.S. Federal or contractor employee. Appropriate notifications (i.e., FBI) will then be made in accordance with 50 U.S.C. Section 402a.

(6) Per DOE O 221.1A, *Reporting Fraud, Waste and Abuse to the Office of Inspector General*, when an inquiry surrounding an IOSC establishes information indicating that fraud, waste, abuse, misuse, corruption, criminal acts, or mismanagement has occurred, the Office of the Inspector General must be notified.

(7) Per DOE M 205.1-8 Admin Chg 2, *Cyber Security Incident Management Manual*, dated 1-08-09, all cyber security related incidents must be reported to the Computer Incident Response Center (CIRC). Any cyber security incident involving the loss, theft, compromise, or suspected compromise of classified or controlled unclassified information must also be reported through the IOSC program.

(8) Whenever a compromise involves the classified matter of another Federal agency, the Federal designee(s) within line management must coordinate with the other government agencies (OGAs), as appropriate.

(9) Whenever a compromise involves the matter of a foreign government that requires protection (e.g., Confidential Foreign Government Information Modified Handling [C/FGI-Mod], classified Foreign Government Information), the Federal designee(s) within line management must coordinate with the U.S. Department of State and the foreign government as appropriate. The foreign government, however, will not normally be advised of any Departmental security system vulnerabilities that allowed or contributed to the compromise.

(10) If a compromise of SCI has occurred, the Director, Office of Intelligence and counterintelligence, must consult with the designated representative of the Director, Central Intelligence and other officials responsible for the information involved.

f. Special Reporting Situations. Under certain circumstances, related IOSCs that are anticipated to recur over a long period of time may be consolidated from a reporting and documentation perspective. This situation will be handled on a case-by-case basis between the contractor CSO and the Federal designee(s) with specific reporting plans documented in the approved site IOSC program plan.

6.7 Prompt Notification Report Form

For use by the ORPS Manager

1) The Facility Manager must e-mail the **prompt notification** of the reportable occurrence to the DOE **and** follow up transmission with a phone call to the DOE HQ OC to ensure receipt of the e-mail.

2) The Prompt Notification must clearly state/select the Significance Category (1, R, 2, 3, or 4) and identify the specific reporting criteria associated with the occurrence.

3) Prompt Notification to the DOE HQ OC must include all information listed on the attached 2-page form.

4) All information should be clear and succinct. Avoid jargon. Uncommon or site/facility-specific abbreviations and acronyms should be fully described.

5) DOE Notification E-mail address is: doehqeoc@oem.doe.gov (backup e-mail is: wtchofc2oem.doe.gov);

6) Phone number to verify receipt of e-mail notification is: (202)586-8100. HQ EOC FAX number is still: (202)586-8485;

PAGE 1 of 2

Name of Facility: ***FERMI NATIONAL ACCELERATOR LABORATORY***

Facility Manager or Designee ***Bruce Chrisman***
Title: ***Chief Operating Officer***
Telephone Number: ***(630) 840-2359***

Originator/Transmitter: (usually head of division/section issuing report)
Name:_____ Phone: *(630) 840-* _____
Title: _____

Significance Category: 1 ( ) R ( ) 2 ( ) 3 ( ) 4 ( )

LOCATION and DESCRIPTION OF EVENT:

_____
_____
_____
_____

DISCOVERY DATE_____ _____TIME_____

DAMAGE and CASUALITIES:

_____
_____
_____

IMPACT of EVENT ON OTHER ACTIVITIES AND OPERATIONS:

_____
_____
_____

FERMI NATIONAL ACCELERATOR LABORATORY

PROTECTIVE ACTIONS TAKEN OR RECOMMENDED:

_____

_____

_____

WEATHER CONDITIONS AT THE SCENE:

_____

_____

_____

LEVEL OF MEDIA INTEREST AT SCENE/FACILITY/SITE:

_____

_____

_____

OTHER NOTIFICATIONS MADE:

Time	Number	Agency
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Signatures

Facility Manager/Designee

Signed by:_____ Date: _____

Typed Name:_____

DOE Facility Representative/Designee

Signed by:_____ Date: _____

Typed Name:_____

6.8 **Definitions**

1. APPARENT CAUSE. The most probable cause(s) that explains why the event happened, that can reasonably be identified, that local or facility management has the control to fix, and for which effective recommendations for corrective action(s) to remedy the problem can be generated, if necessary.

2. BUSINESS DAY. The normal administrative day of the reporting organization (e.g., Monday through Friday, 0800 to 1700 local time) during which normal work activities are conducted. It is not meant to encompass the 24 hours in a day, even if the facility is operated or maintained on a 24-hour basis.

3. CONDITION. Any as-found state, whether or not resulting from an event, that may have adverse safety, health, quality assurance, operational or environmental implications. A condition is usually programmatic in nature; for example, errors in analysis or calculation; anomalies associated with design or performance; or items indicating a weakness in the management process are all conditions.

4. DEFECTIVE ITEMS. A defective item or material is any item or material that does not meet the commercial standard or procurement requirements as defined by catalogues, proposals, procurement specifications, design specifications, testing requirements, contracts, or the like. It does not include parts or services that fail or are otherwise found to be inadequate because of random failures or errors within the accepted reliability level.

5. DISCHARGE. Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under Chapter 402 of the Clean Water Act (CWA); discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under Chapter 402 of the CWA and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under Chapter 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems.

6. DISCOVERY DATE AND TIME. The discovery date and time is when the facility staff discovered or became aware of the event or condition. Discovery date is NOT the date and time when the event or condition is determined to be reportable. The facility staff is those personnel assigned to the facility and cognizant of the area in which the event or condition is identified.

7. ELECRICALY SAFE WORK CONDITION. A state in which the conductor or circuit part to be worked on or near has been disconnected from energized parts, locked/tagged in accordance with established standards, tested to ensure the absence of voltage, and grounded if determined necessary.

8. EQUIVALENT DOSE

a. Committed Effective Dose (E50) — Refer to 10 CFR 835.2 or to DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11

b. Committed Equivalent Dose (HT,50) — Refer to 10 CFR 835.2 or to DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11

c. Effective Dose (E) — Refer to 10 CFR 835.2 or to DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11

d. Total Effective Dose (TED) — Refer to 10 CFR 835.2 or to DOE O 458.1 Chg 2, *Radiation Protection of the Public and the Environment*, dated 6-6-11

9. EVENT. Something significant and real-time that happens (e.g., pipe break, valve failure, loss of power, environmental spill, earthquake, tornado, flood, injury).

10. FACILITY. Any equipment, structure, system, process, or activity that fulfills a specific purpose. Examples include accelerators, storage areas, fusion research devices, nuclear reactors, production or processing plants, coal conversion

plants, magnetohydrodynamic experiments, windmills, radioactive waste disposal systems and burial grounds, environmental restoration activities, testing laboratories, research laboratories, transportation activities, and accommodations for analytical examinations of irradiated and un-irradiated components.

11. FACILITY MANAGER. A federal (including government-owned, government-operated sites) or contractor individual, or designee, with direct line responsibility for operation of a facility or group of related facilities, including authority to direct physical changes to the facility. For purposes of this Order, a Facility Manager could also be responsible for a program or activity.

12. FACILITY REPRESENTATIVE. For each major facility or group of lesser facilities, an individual or designee assigned responsibility by the Head of Field Element/Operations Organization (including NNSA) for monitoring the performance of the facility and its operations. This individual should be the primary point of contact with the facility operating personnel and will be responsible to the appropriate Secretarial Officer/Deputy Administrator (NNSA) and Head of Field Element/Operations Organization for implementing the requirements of this Order.

13. HAZARDOUUS ELECTRICAL ENERGY EXPOSURE. Within the Limited Approach Boundary (LAB) of an energized part not suitably guarded, isolated, or insulated. This includes de-energized parts for which a safe work condition has not been established, e.g. lockout/tagout.

14. HAZARDOUS SUBSTANCE OR MATERIAL.

a. Department of Energy - Hazardous Material. Any solid, liquid, or gaseous material that is chemically toxic, flammable, radioactive, or unstable upon prolonged storage, and that exists in quantities that could pose a threat to life, property, or the environment.

b. Department of Transportation - Hazardous Materials (see 49 CFR Sections 171.8 and 172.101). A substance or material, including a hazardous substance, which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated.

c. Comprehensive Environmental Response, Compensation and Liability Act Hazardous Substances (see 40 CFR Part 302).

d. Occupational Safety and Health Administration (OSHA) Hazardous Chemical (see 29 CFR Section 1910.1000 and 29 CFR Section 1910.1200). Any chemical which is a physical or a health hazard.

e. Superfund Amendments and Reauthorization Act Title 3 Extremely Hazardous Substances (see 40 CFR Part 355). These are not defined but appear on lists in Appendix A and Appendix B of 40 CFR Part 355.

15. IN-PATIENT HOSPITALIZATION. Admission to a hospital requiring at least one overnight stay. This would include admission for purposes of observation only.

16. ITEM

a. An all-inclusive term used in place of the following: appurtenance, sample, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit, or support systems, documented concepts, or data.

b. When used in reference to nuclear material, a visible, single piece or container of nuclear material with a unique identification and known nuclear material mass.

17. LESSONS LEARNED. A “good work practice” or innovative approach that is identified and shared, or an adverse work practice or experience that is captured and shared to prevent recurrence

18. NON-REPORTABLE EVENT. An event that falls within the ORPS Reporting Groups, does not meet any of the

specific ORPS Reporting Criteria, and the reporting organization has determined to be included in the required ORPS Performance Analysis activity.

19. NOTIFICATION REPORT. The initial documented report to the Department of an event or condition that meets the reporting criteria defined in this Order.

20. NUCLEAR FACILITY. A reactor or nonreactor nuclear facility where an activity is conducted for or on behalf of DOE and includes any related area, structure, facility, or activity to the extent necessary to ensure proper implementation of the requirements of 10 CFR Section 830.

21. OCCURRENCE. (Emergency Occurrences) – Any unplanned or abnormal event that adversely affects, potentially affects or is indicative of degradation in the safety, safeguards and security, environmental or health protection or operation of a facility. It is not expected that an emergency occurrence will occur at Fermilab, unless due to off-site hazardous material releases. One or more (i.e., recurring) events or conditions that adversely affect, or may adversely affect, DOE (including NNSA) or contractor personnel, the public, property, the environment, or the DOE mission. Events or conditions meeting the criteria thresholds identified in this Order or determined to be recurring through performance analysis are occurrences.

22. OCCURRENCE INVESTIGATION. An investigation conducted according to site-specific procedures and/or when determined by DOE procedures that an investigation by a Federal Accident Investigation Board is required.

23. OCCURRENCE REPORT. A documented evaluation of a reportable occurrence that is prepared in sufficient detail to enable the reader to assess its significance, consequences, or implications and to evaluate the actions being proposed or employed to correct the condition or to avoid recurrence.

24. OFFSITE. Property or location that is not DOE/NNSA or DOE/NNSA contractor owned, leased, or directly controlled.

25. OFFSITE TRANSPORTATION EVENT. Involves movement of materials that are considered to be in commerce, thus requiring compliance with Department of Transportation Hazardous Materials Regulations. (49 CFR Sections 171 – 180) Transportation events with injuries or fatalities may also require reporting in accordance with Group 2 criteria.

26. OIL. Oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

27. ONSITE. Property or location that is DOE/NNSA or DOE/NNSA contractor owned, leased, or directly controlled.

28. ONSITE TRANSFER EVENT. Involves movement of material not in commerce and subject to regulations in 10 CFR Section 830 or DOE onsite procedures and safety requirements. Onsite transfer events with injuries or fatalities may also require reporting in accordance with Group 2 criteria.

29. OPERATIONS. The act, process, or method of operating. This can apply to facilities regardless of mode (shutdown, standby, operational) or state (construction, operational, deactivated, decommissioning).

30. OPERATIONAL EMERGENCY (OE) - Fermilab specific Operational Emergencies are found in TA 3010-1. Major unplanned or abnormal events or conditions that: involve or affect DOE/NNSA facilities and activities by causing, or having the potential to cause, serious health and safety or environmental impacts; require resources from outside the immediate/affected area or local event scene to supplement the initial response; and, require time-urgent notifications to initiate response activities at locations beyond the event scene. Operational Emergencies are the most serious occurrences and require an increased alert status for onsite personnel and, in specified cases, for offsite authorities. The prompt notification requirements, definitions, criteria, and classifications of operational emergencies and appropriate responses are provided in the Fermilab Emergency Response Plan. Written Occurrence Reports must be completed in accordance with this Manual.

31. ORPS MANAGER. Individual in ESH assigned the responsibility to oversee and manage the submission, tracking

and maintenance of the FNAL ORPS DOE HQ database. Also assigned to assist and facilitate the D/S/C in the submission of documentation to DOE HQ, following the procedures as outlined in this FESHM chapter and as required by DOE O 231.1a. When requested by FNAL management, provide assistance in determining whether or not an event meets the criteria for an ORPS submission.

32. PACKAGING AND TRANSPORTATION. Packaging and Transportation activities/functions include: (1) Packaging - Activities related to the design, manufacture, and qualification of packaging represented as qualified for use in the transportation of hazardous materials; (2) Pre-transportation functions; (3) Transportation functions (movement of hazardous materials and loading, unloading, and storage incidental to the movement); and (4) Shipping in accordance with applicable international, Federal, state, local, and tribal laws, rules, and regulations governing materials transportation that are consistent with Federal regulations (e.g., 10 CFR and 49 CFR) and DOE Packaging and Transportation Directives (e.g., DOE Order 460.1C, DOE Order 460.2A, DOE Manual 460.2-1A, DOE Order 461.1B, and 10 CFR Section 830, *Nuclear Safety Management*).

33. PERFORMANCE DEGRADATION. Failure or degradation of a facility, process, system, or component that reduces the reliability of critical components of the facility whose loss or degradation prevents the system from performing its intended function. Performance degradation does not include: (1) a burned out power indicator light on a piece of radiation monitoring equipment that does not prevent the equipment from detecting elevated radiation levels and alarming as designed; (2) a piece of equipment that is determined to be out of calibration on the conservative side (such as a low level alarm that alarms at a higher value than it should); or (3) the temporary loss of a component where redundant components are maintained operable or in operation and the authorization basis is not compromised.

34. PERSONNEL EXPOSURE. An incident of contact or encounter with a hazardous chemical, radiological, physical, biological, or energetic agent at one of the exchange boundaries of the organism (e.g., skin, respiratory system, eyes, ears, or digestive system). "Exposure" does not refer to a situation where personnel, protected by appropriate personal protective equipment, are subjected to an environment whose ambient conditions present a harmful level of any one, or combination of, the hazards.

35. POLLUTANT. Any material requiring a permit for release into the environment.

36. PRE-TRANSPORTATION FUNCTION. A function specified in the Hazardous Materials Regulations (HMR) that is required to assure the safe transportation of a hazardous material in commerce, including: materials classification, packaging, marking, labeling, shipping paper preparation, loading, blocking, bracing, segregating, securing, and placarding (49 CFR Section 171.8).

37. PRIMARY CONFINEMENT. Provides confinement of hazardous material to the vicinity of its processing. This confinement is typically provided by piping, tanks, glove boxes, encapsulating material, and the like, along with any off gas systems that control effluent from within the primary confinement.

38. PROGRAM MANAGER. The individual designated for this Order, by and under the direction of a Secretarial Officer/Deputy Administrator (NNSA), who is directly involved in the operation of facilities under his or her cognizance, and is authorized to provide technical direction through Heads of Field Elements/Operations Offices (including NNSA) to operating personnel for these facilities.

39. PROMPT NOTIFICATION. Timely reporting of the occurrence to the DOE Field Office and the DOE Headquarters Operations Center as required by the Significance Category and the reporting criteria of the occurrence. Those incidents identified in TA 3010-1 that are annotated with a Asterisks (*) next to the significance categories below denote those occurrences requiring prompt notification to the DOE HQ OC. "*" require the emailing of the Prompt Notification Form and follow on phone call to the DOE-EOC within 2 hours of classification. All other reports have specific time limits on submitting reports to DOE.

40. RELEASE. Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or otherwise disposing of substances into the environment. This includes abandoning/discarding any type of receptacle containing substances in an unenclosed containment structure, but does not include permitted containment structures

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41. REPORTABLE OCCURRENCE. Occurrence to be reported in accordance with the criteria defined in this Order. Occurrence to be reported in accordance with the criteria defined in TA 3010-1.

42. ROOT CAUSE. The causal factor(s) that, if corrected, would prevent recurrence of the occurrence. It is the most basic cause that explains why the event happened, that can reasonably be identified, that senior management has the control to fix, and for which effective recommendations for corrective actions to remedy the problem, prevent specific recurrence of the problem, and preclude occurrence of similar problems can be generated, if necessary. This is typically one level further in analysis beyond the Apparent Cause(s) (i.e., one level beyond the Level C node of the CAT).

43. SAFETY CLASS STRUCTURES, SYSTEMS, OR COMPONENTS (SAFETY CLASS SSCs). The structures, systems, or components, including portions of process systems, whose preventive or mitigative function is necessary to limit radioactive hazardous material exposure to the public, as determined from safety analyses. (10 CFR Section 830.3)

44. SAFETY SIGNIFICANT STRUCTURES, SYSTEMS, OR COMPONENTS (SAFETY SIGNIFICANT SSCs). The structures, systems, or components, including portions of process systems, whose preventive or mitigative function is necessary to limit radioactive hazardous material exposure to the public, as determined from safety analyses. Potential latent effects are excluded. The SSSSCs for Fermilab are:

- Radiation Safety Interlock System
- In-Place Oxygen Deficiency Monitors/Alarm System
- Flammable Gas Detection Systems
- Pressure Relief Systems for Cryogenic Vessels
- Passive Radiation Shielding Configurations for Accelerators and Beamlines

45. Significance Category 1: Non-OE events that caused actual harm; posed the potential for immediate harm or mission interruption due to safety system failure and required prompt mitigative action; or constituted an egregious noncompliance with regulatory requirements that created the potential for actual harm or mission interruption.

46. Significance Category 2: Circumstances that reflected degraded safety margins—necessitating prompt management attention along with modified normal operations—to prevent an adverse effect on safe facility operations; worker or public safety and health, including significant personnel injuries; regulatory compliance; or public/business interests.

47. Significance Category 3: Events or circumstances with localized implications including personnel injury, environmental releases, equipment damage or hazardous circumstances that were locally contained and did not immediately suggest broader systemic concerns.

48. Significance Category 4: Events or circumstances that were mitigated or contained by normal operating practices, but where reporting provides potential learning opportunities for others.

49. Significance Category R: Recurring occurrences are those identified as recurring, either directly or through periodic analysis of occurrences and other non-reportable events.

50. SUSPECT/COUNTERFEIT ITEMS (S/CIs). An item which is suspect when inspection or testing indicates that it may not conform to established Government or industry-accepted specifications or national consensus standards or whose documentation, appearance, performance, material, or other characteristics may have been misrepresented by the vendor, supplier, distributor, or manufacturer. A counterfeit item is one that has been copied or substituted without legal right or authority or whose material, performance, or characteristics have been misrepresented by the vendor, supplier, distributor, or manufacturer. Items that do not conform to established requirements are not normally considered S/CIs if non-conformity results from one or more of the following conditions (which must be controlled by site procedures as nonconforming items):

a. defects resulting from inadequate design or production quality control;

b. damage during shipping, handling, or storage;

c. improper installation;

d. deterioration during service;

e. degradation during removal;

f. failure resulting from aging or misapplication; or,

g. other controllable causes. (IAEA-TECDOC-1169).

51. TECHNICAL SAFETY REQUIREMENTS (TSRS). The limits, controls, and related actions that establish the specific parameters and requisite actions for the safe operation of a nuclear facility and include, as appropriate for the work and the hazards identified in the documented safety analysis for the facility: safety limits, operating limits, surveillance requirements, administrative and management controls, use and application provisions, and design features, as well as a bases appendix. (10 CFR Section 830.3)

52. UNREVIEWED SAFETY QUESTION (USQ). A situation where (1) the probability of the occurrence or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the documented safety analysis could be increased, (2) the possibility of an accident or malfunction of a different type than any evaluated previously in the documented safety analysis could be created, (3) a margin of safety could be reduced, or (4) the documented safety analysis may not be bounding or may be otherwise inadequate. (10 CFR Section 830.3)