

Management Control Procedure

Event Investigation and Occurrence Reporting

**Idaho
Cleanup
Project**

CH2M • WG Idaho, LLC is the Idaho Cleanup Project contractor for the U.S. Department of Energy

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 1 of 76
---	---

Companywide	Management Control Procedure	For Additional Info: http://EDMS	Effective Date: 07/09/13
-------------	------------------------------	--	--------------------------

Manual: 3 – ES&H Program Support

USE TYPE 3

Change Number: 336645

*The current revision can be verified on EDMS.

CONTENTS

1.	PURPOSE	3
2.	SCOPE	3
3.	RESPONSIBILITIES	4
4.	INSTRUCTIONS.....	5
4.1	General Instructions.....	5
4.2	Occurrence Report Decision Paths	8
4.3	Event Discovery.....	8
4.4	Categorization.....	10
4.5	Initial Data Collection.....	11
4.6	Notifications.....	13
4.7	Unreviewed Safety Question (USQ) and Price Anderson Amendment Act (PAAA) Mandatory Screening	15
4.8	Written Notification Report Preparation and Submittal	15
4.9	Processing a Significance Category 4 Report.....	17
4.10	Event Investigation and Cause Analysis.....	18
4.11	Submitting a Final Report.....	19
4.12	Submitting an Update Report.....	21
4.13	Canceling a Written Notification Report	22
4.14	DOE Rejected Final Reports.....	23
4.15	Make Editorial (Text) Changes to a Final ORPS Report.....	23
4.16	Back Staging A Report – To Change a Reporting Criteria’s Significance Category for a Final Report	26

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 2 of 76
---	---

5. RECORDS26

6. DEFINITIONS.....27

7. REFERENCES35

8. APPENDIXES37

 Appendix A—Reporting Criteria.....38

 Appendix B—Occurrence Reporting Model54

 Appendix C—Causal Analysis Tree.....55

 Appendix D—Instructions for Completing an Occurrence Report56

 Appendix E—MCP-190 Basis71

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 3 of 76**1. PURPOSE**

This procedure implements the requirements of U.S. Department of Energy (DOE) Order 232.2, “Occurrence Reporting and Processing of Operations Information (ORPS),” and its Contractor Requirements Document (CRD).

Occurrence reports (see def.) inform the DOE and company management, on a timely basis, of *occurrences* (see def.) that could adversely affect national security, the health and safety of the public or workers, the environment, the intended purpose of DOE *facilities* (see def.), or the credibility of the DOE and the company.

2. SCOPE

This procedure establishes CH2M-WG Idaho’s, LLC (CWI’s) – the Idaho Cleanup Project’s (ICP) – occurrence reporting program, which includes identifying, categorizing, notifying, investigating, developing corrective actions, and disseminating written occurrence reports to DOE and to appropriate CWI management. This program provides personnel with a consistent process to investigate, determine causal factors, identify appropriate corrective actions, analyze data to identify adverse trends, and communicate this information to the appropriate management levels.

This Management Control Procedure (MCP) directs users to MCP-598, “Corrective Action System” to develop and implement corrective action plans.

This procedure also works in conjunction with PLN-2012, “Emergency Management - ICP Emergency Plan/RCRA Contingency Plan,” when an operation emergency (OE) is declared or is underway.

For those facilities licensed by the NRC, Three Mile Island Independent Spent Fuel Storage Installation (NRC License No., SNM-2508, Docket #72-20), Fort St. Vrain Independent Spent Fuel Storage Installation (NRC License No. SNM-2504, Docket #72-9), and the Idaho Spent Fuel Facility (ISFF) (Docket No. 72-25, Materials License No. SNM-2512, Transfer Effective 9/9/09), reporting in accordance with NRC requirements will substitute for reporting under DOE Order 232.2; when an overlap or requirement duplication exists.

In these instances, report in accordance with Title 10 Code of Federal Regulations (CFR) Part 72 and 10 CFR 20 through MCP-2924, “NRC Licensee Event and Condition Reporting,” and as applicable, MCP-2928, “10 CFR 21 Evaluations and Reports.”

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 4 of 76
---	---

3. RESPONSIBILITIES

Performer	Responsibilities
<p><i>Area Project Manager, Functional Support Manager, Director / Project Manager (APM/FSM, D/PM); (see def. and PDD-1005)</i></p>	<p>Ensure the Event Investigation and Occurrence Reporting Program is implemented by personnel within their area, functional area, or program by:</p> <ul style="list-style-type: none"> • providing program coordination with qualified personnel, which includes <i>facility managers</i> (see def.), formal-cause analysts, and fact-finding meeting leaders; • maintaining a facility/area call list; and • evaluating <i>events</i> (see def.) and <i>lessons learned</i> (see def.) for Sitewide action, if warranted.
<p>Facility Manager or Designee</p>	<p>Ensure the following Occurrence Reporting and Processing System (ORPS) program elements are properly implemented:</p> <ul style="list-style-type: none"> • immediate actions; • initial data collection; • event categorization; • oral notification; • written <i>occurrence report</i> preparation and submittal (notification, update, and final); • event investigation; • causal analysis; • corrective action planning; • records maintenance; • occurrences resulting from activities performed by subcontractors are reported; and • participating in the ORPS Center of Excellence (COE).
<p>ORPS preparer (to include the Facility Manager Administrator)</p>	<ul style="list-style-type: none"> • Completing required CWI ORPS training. • Registering for ORPS user access (at a level determined by the FM or FM Designee). • Assisting the FM or FM Designee in event reportability, if requested. • Becoming familiar with this MCP. • Preparing, writing and submitting ORPS reports as directed by the FM or Designee. • Participating in event investigation and cause analysis when requested by the FM or FM Designee. • Participating in the ORPS COE.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 5 of 76
---	---

Performer	Responsibilities
Idaho Cleanup Project (ICP) ORPS Subject Matter Expert (SME)	<ul style="list-style-type: none"> • Acting as interpretative authority for occurrence reporting requirements. • Developing and maintain ORPS authority and facility file. • Ensuring required training courses are available and current. • Providing facility manager assistance when requested. • Trending and analyzing event/occurrence data to identify recurring patterns. • Reviewing and commenting on draft final occurrence reports. • Chairing the ORPS COE.
Employee	Reporting actual or potential events/conditions to immediate manager/supervisor.

4. INSTRUCTIONS

NOTE 1: *The terms Area Project Manager (APM), Functional Support Manager (FSM), Director/Project Manager (D/PM) and Facility Manager (FM – which includes Nuclear Facility Manager, Facility Manager and Building Manager) include their designees (such as an FMD – Facility Manager Designee); for additional information, refer to Section 3 “Responsibilities,” Section 6 “Definitions,” and PDD-1005, “ICP Management and Operations Manual.”*

NOTE 2: *ORPS preparer is a general term to include the Facility Manager Administrator and ORPS Preparer; Section 6, “Definitions,” provides language to these terms.*

4.1 General Instructions

4.1.1 APM/FSM: Ensure personnel and other resources are dedicated to event investigation and reporting.

4.1.1.1 Provide qualified analysts for formal cause analysis (FCA) (*see def.*) and documented apparent cause analysis (DACA) (*see def.*); Qualification Code QCCAUSAN.

4.1.1.2 Ensure FMs, as defined by this MCP, complete the following training:

A. 00ICP164, “Introduction To Occurrence Reporting”

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 6 of 76

- B. 00TRN779, “Cause Analysis and Corrective Action Development.”
- 4.1.1.3 Ensure personnel (generally the FM) within applicable project/program coordinate and monitor occurrence reporting in the following areas:
- A. Event identification
 - B. Event notification and categorization and report timeliness
 - C. Occurrence report quality.
- 4.1.1.4 Ensure events/conditions are appropriately investigated.
- 4.1.1.5 Ensure the appropriate causal analysis level (FCA, DACA or apparent cause analysis [ACA]) is complete and thorough for Significance Category 3 and above events.
- 4.1.1.6 Corrective actions are developed and maintained in accordance with MCP-598, “Corrective Action System.”
- 4.1.1.7 Ensure occurrence report (OR) information is maintained and current in the ORPS database.
- 4.1.1.8 Evaluate and analyze occurrences within applicable project/program, to identify appropriate/relevant information to include in the “Lessons Learned” section for Sig. Cat. 3 and above ORPS reports; and if applicable, or required by other procedures, submit a formal Lessons Learned document in accordance with MCP-192, “Processing Lessons Learned and External Operating Experience Information.”
- 4.1.1.9 Develop and maintain call lists that identifies primary and alternate contact personnel, including phone number and pager code, to notify the primary and alternate contact personnel of an event.
- 4.1.2 Facility Manager: Provide ORPS report preparers (Facility Manger Administrator or ORPS Preparer) who are trained to 00ICP164, “Introduction to Occurrence Reporting.”

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 7 of 76

- 4.1.3 Facility Manager Administrators and ORPS Preparers: Complete 00ICP164 and complete ORPS registration process by completing the user registration form from ORPS website, <http://www.hss.energy.gov/csa/analysis/orps/orps.html> or from ICP's ORPS website, <http://icpportal/eshq/ESHQHomepage/PerformanceAssurance/ORPS/tabid/779/Default.aspx>; user level determined by FM.

NOTE 1: *Additional ORPS electronic database training is available on <http://www.hss.energy.gov/CSA/analysis/orps/orpstrain.html>.*

NOTE 2: *An ICP Occurrence Reporting website is available with guidance documents and tools; refer to <http://icpportal/eshq/ESHQHomepage/PerformanceAssurance/ORPS/tabid/779/Default.aspx>.*

- 4.1.4 ORPS SME: Perform SME duties:
- 4.1.4.1 Perform duties specified in PDD-1005, "ICP Management and Operations Manual."
 - 4.1.4.2 Provide support to APMs/FSMs/FMs to maintain ORPS database authority files (a listing of those who have read and/or write authority for ICP) for their respective areas.
 - 4.1.4.3 Complete required company assessments on occurrence reporting.
 - 4.1.4.4 Perform Quarterly Performance Analysis in accordance with MCP-1269, "Establishing, Monitoring, and Reporting ESH&QA Performance Objectives, Goals, and Measures," and DOE O 232.2.
 - 4.1.4.4.1 For the second and fourth quarter Quarterly Performance Analysis Report, perform an analysis on:
 1. The previous quarters' issues and observations to verify if the issues and observations have reduced in negative performance — compare results to the fourth quarter analysis, and
 2. The fiscal year's final-submitted ORPS reports, reporting on ORPS report quality as it relates to timeliness and rejection.
 - 4.1.4.5 Chair the ORPS Center of Excellence (OR COE) in accordance with CTR-270, "ORPS Center of Excellence."

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 8 of 76
---	---

4.2 Occurrence Report Decision Paths

4.2.1 Facility Manager/Facility Manager Designee/Employee: Go To the applicable section, as needed, and return to this section or to Section 4.1, as needed; ensure previous Sections and sub-steps were reviewed and completed.

Condition	Step
If an event is occurring or has occurred	Go To Section 4.3
If categorizing an event	Go To Section 4.4
If collecting initial data during, or from, an event	Go To Section 4.5
If making event notifications	Go To Section 4.6
If needing to perform a unreviewed safety question (USQ) or a Price-Anderson Amendment Agreement (PAAA) screening	Go To Section 4.7
If preparing and submitting a written notification report	Go To Section 4.8
If processing a Significance Category 4 report	Go To Section 4.9
If conducting an investigation and cause analysis	Go To Section 4.10
If submitting a Final Report	Go To Section 4.11
If submitting an Update Report	Go To Section 4.12
If canceling a written notification report	Go To Section 4.13
If a final occurrence report was rejected by DOE	Go To Section 4.14
If making editorial (text) Changes to a final (submitted) report	Go To Section 4.15
If back staging a final report –changing a reporting criteria’s significance category	Go To Section 4.16

4.3 Event Discovery

4.3.1 Employee: Respond to the *event* by performing the following:

4.3.1.1 Promptly notify immediate supervisor or manager (if conditions permit), then if needing medical treatment for an injury or illness, seek medical evaluation or treatment at the nearest Idaho National Laboratory (INL) Occupational Medical clinic (in all cases, no later than the end of your work shift).

4.3.1.2 Obtain emergency assistance as necessary through the Warning Communications Center (WCC).

4.3.1.2.1 Site facility, dial 777 or 6-1515 from office phones, or 526-1515 from cellular phones.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 9 of 76

- 4.3.1.2.2 If the occupational injury/illness occurs at an Idaho Falls facility, dial 9-911 from office phones or 911 from cellular phones.
- 4.3.1.3 If the occupational injury or illness occurs on a back shift at a Site facility, then:
 - A. Notify the on-duty shift supervisor
 - B. Seek medical evaluation from the Central Facilities Area (CFA) Medical facility
 - C. Provide further information to management at beginning of the next calendar day.
- 4.3.1.4 Document, as requested by the facility manager, significant information pertaining to any event/condition.
- 4.3.2 Facility Manager: Initiate appropriate action in situations requiring a response.
 - 4.3.2.1 If an injury or illness has occurred, respond and report the injury or illness in accordance with MCP-49, “Occupational Injury/Illness Reporting and Follow-up.”
 - 4.3.2.2 Stabilize the facility or mitigate the consequences of any event/condition, commensurate with training and qualification, and preserve scene for further investigation.
 - 4.3.2.3 Obtain emergency assistance as necessary through the Warning Communications Center (WCC).
 - 4.3.2.3.1 Site facility, dial 777 or 6-1515 from office phones, or 526-1515 from cellular phones.
 - 4.3.2.3.2 If the occupational injury/illness occurs at an Idaho Falls facility, dial 9-911 from office phones or 911 from cellular phones.
 - 4.3.2.4 Activate the Emergency Management - ICP Emergency Plan/RCRA Contingency Plan, PLN-2012, as applicable.
 - 4.3.2.5 If an event involves one of the following, immediately report to the WCC at 526-1515:
 - A. The possible compromise of classified material
 - B. Special nuclear material (SNM)
 - C. Shock sensitive or dangerous materials.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 10 of 76
---	--

- D. Any off-site *transportation* (see def.) incident involving hazardous materials that would require immediate notice as required by 49 CFR 171.15(b) and 49 CFR Section 390.5. (Refer to Group 8, Packaging and Transportation.)
- 4.3.2.6 Determine affected system(s) conditions.
- 4.3.2.7 Ensure operability of all safety-related system(s).
- 4.3.2.8 Decide whether continued operation is justified or whether systems are available to support safe facility shutdown.
- 4.3.2.9 Direct affected/involved employees to document significant information to the event, condition, or emergency.
- 4.3.2.10 Ensure events/occurrences resulting from activities performed by subcontractors to support ICP are reported/managed in accordance with this MCP.

4.4 Categorization

- 4.4.1 Facility Manager: Go to Appendix A, “Reporting Criteria” to categorize the event/condition within two hours of event *discovery* (see def.).
 - 4.4.1.1 If collecting data for a Potential Inadequacy to a Safety Analysis (PISA), then go to MCP-123, “Unreviewed Safety Questions.”
 - 4.4.1.2 If reporting criterion applicability is unclear or the occurrence exceeds the threshold of more than one criterion, then select all reporting criteria under consideration.
- 4.4.2 Facility Manager: Go to Appendix B, “Occurrence Reporting Model,” to determine procedural reporting requirements, and Appendix D, “Instructions for Completing an Occurrence Report.”
- 4.4.3 Facility Manager: If an event involves Strontium-90 (SR-90), then review EDF-7781, “Technical Basis for Strontium-90 Contamination Release Limits,” when determining event categorization and reportability.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 11 of 76
---	--

- 4.4.4 Facility Manager: If occurrence meets emergency action levels (EALs) identified in PLN-2012, “Emergency Management - ICP Emergency Plan/RCRA Contingency Plan”, and its associated procedures, then notify the emergency action manager (EAM) or emergency coordinator (EC),
and go to and perform Step 4.7
followed by step 4.8
(prompt notifications are made by the WCC, not by the facility manager).
- 4.4.5 Facility Manager: If the occurrence involves foreign personnel, governments, organizations, entities or influence, then do not enter or reference this information in the ORPS database, and immediately report such incidents to the Warning Communications Center (WCC) at 526-1515.
- 4.4.6 Facility Manager: If an occurrence is identified as *recurring* (R) (see def.), then categorize the occurrence as a Significance Category R occurrence.
- 4.4.6.1 Record for event Discovery and Categorization date and time, when the facility manager concurred with the identified recurring issue.
- 4.4.7 Facility Manager: If an occurrence meets the thresholds of more than one reporting criterion, as identified in Appendix A, then categorize the occurrence at the highest appropriate significance category of a reporting criterion.
- 4.4.8 Facility Manager: Go To Step 4.6 and make *prompt notifications* (see def.) based on the reporting criteria selected for the occurrence.
- 4.4.9 Facility Manager: If new information becomes available about the event, then elevate, maintain, or lower the event’s categorization.
- 4.4.9.1 If the event’s categorization changes, then go to Step 4.6 and conduct prompt notifications.
- 4.4.10 Facility Manager: Enter all ORPS reported events into the ICP ICARE system, and process the issue in accordance with MCP-598, “Corrective Action System.”

4.5 Initial Data Collection

- 4.5.1 Facility Manager: Take necessary actions to preserve conditions for continued investigation as long as those actions do not interfere with establishing a safe condition.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 12 of 76

- 4.5.2 Facility Manager: Obtain statements from key personnel (those involved in the event) while the event/condition is still fresh in their memory and before they leave the site or have time to discuss or reflect on the event/condition.
- 4.5.3 Facility Manager: Collect and document the following information as soon as possible for use in the event/condition investigation as applicable:
- A. Initial conditions
 - B. Preserved conditions
 - C. Actions taken to stabilize the facility
 - D. Copies of logsheets and logbooks
 - E. Work permits
 - F. Area survey results
 - G. Copies of applicable procedures and documentation.
- 4.5.4 Facility Manager: Perform initial investigation of the event/condition to identify facts required to perform categorization, to make notifications, to prepare the written *notification report* (see def.), and to prepare for further investigations and causal analysis (Section 4.10), and fact finding.
- 4.5.5 Facility Manager: If the event is a Significance Category 3 or higher event, then conduct a fact finding meeting in accordance with MCP-165, “Initial Fact Finding To Support Event Investigation.”
- 4.5.6 Facility Manager: If the event is a Significance Category 4, then consider conducting a fact finding meeting in accordance with MCP-165, to provide sufficient detail for the “Description of Occurrence” field (to aid the reader in understanding the event and why the contractor is reporting).
- NOTE:** *Appendix B, “Occurrence Reporting Model, gives detail as to investigation and reporting levels.*
- 4.5.7 Facility Manager: If the event is a Potential Inadequacy to a Safety Analysis (PISA), and if the USQ determination proves negative (the PISA event remains), then a fact finding meeting is not warranted.
- 4.5.8 Facility Manager: Go To Appendix B, “Occurrence Reporting Model,” for investigation and reportability levels, and direction.
- 4.5.9 Facility Manager: If a fact finding meeting is scheduled, inform and invite the applicable DOE Idaho Operations Office (DOE-ID) facility representative.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 13 of 76
---	--

4.6 Notifications

- 4.6.1 Facility Manager: Refer to Appendix A, “Reporting Criteria,” and Appendix B, “Occurrence Reporting Model,” for notification guidance.

NOTE: *Leaving a phone message or submitting an e-mail to a facility representative does not meet the requirement to promptly notify the DOE-ID facility representative — voice-to-voice communication must occur.*

- 4.6.2 Facility Manager: If categorization determined the occurrence to be a Significance Category 1 or an OE, or any applicable reporting criterion is asterisked (as written in Appendix A, “Reporting Criteria,” significance category column), or as requested by the DOE-ID facility representative, make prompt e-mail notifications and include the following:

NOTE: *Warning Communications Center (WCC) at 526-1515 can assist facility management by establishing conference calls, sending e-mails and/or by performing follow-up calls to ensure e-mail receipt.*

- A. Occurrence significance category
- B. Applicable reporting criteria
- C. Location and description of the event
- D. Event *discovery date and time* (see def.)
- E. Damage and casualties
- F. Impact of event on other activities and operations
- G. Protective actions taken or recommended
- H. Weather conditions at the scene
- I. Level of media interest at scene/facility/site
- J. Other notification made.

- 4.6.2.1 If the e-mail contains classified or sensitive information, obtain classification review, and if necessary, sanitize e-mail before sending to the following, as applicable:

- A. DOE Headquarters Operations Center (HQ-OC);
e-mail: doehqeoc@oem.doe.gov; phone: 202-586-8100;
FAX: 202-586-8485

NOTE: *DOE Headquarters' preferred communication method are e-mail, with receipt verification, and voice communications.*

- B. State of Idaho Communication Center (where public could be affected)
- C. Tribes (where public could be affected)

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 14 of 76

D. DOE-ID Facility Representative

E. Communications office.

4.6.3 Facility Manager: If the event was categorized as a Significance Category 2, 3, or 4 (non-asterisk) event, then do the following:

4.6.3.1 Make a *prompt notification* (see def.) to the applicable DOE-ID facility representative, within the two hour time limit and gain concurrence to the event's categorization level.

4.6.3.2 If the applicable DOE-ID facility representative does not provide a categorization concurrence or rejection notice within 24-hours after they received the "*prompt notification*," then proceed with the event's initial categorization.

4.6.3.3 If directed by the DOE-ID facility representative, make additional notifications per their request (such as to DOE-HQ OC [Operations Center]; note notifications in the applicable notifications field ("Other Notifications" for DOE-ID facility representative and agencies and stakeholders, DOE-HQ as noted in the ORPS database) ORPS database field.

4.6.4 Facility Manager: If the event was categorized as a Significance Category "R," for recurring, then notify the applicable DOE-ID facility representative no later than (NLT) two-hours after categorization; document the notification in the "Other Notifications" ORPS database field.

4.6.5 Facility Manager: If the occurrence is re-categorized, then do the following:

4.6.5.1 Go To step 4.6.1 to reconsider the occurrence for prompt notification,
OR
step 4.6.6 for normal/standard notifications.

4.6.5.2 Notify the applicable DOE-ID facility representative and the DOE-HQ Office of Compliance, within the prompt notification time requirements for the new significance category, that an existing occurrence was re-categorized, and provide the occurrence report number; note notifications in the applicable notifications field ("Other Notifications" for DOE-ID facility representative and agencies and stakeholders, DOE-HQ as noted in the ORPS database) ORPS database field.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 15 of 76
---	--

- 4.6.5.3 If the event was re-categorized in accordance with DOE-ID facility representative direction then record the new Significance Category in field #22, document date and time when the DOE-ID facility representative directed the change, and why, in the “Evaluation by Facility Manager” field (field #33).
- 4.6.5.4 Document the re-categorization (date and reason why) in the “Evaluation by Facility Manager” field (field #33).
- 4.6.6 Facility Manager: When notifying the applicable DOE-ID facility representative of the initial reporting criteria and significance category, then document the notification in the “Other Notifications” field.
- 4.6.6.1 If the applicable DOE-ID facility representative does not communicate concurrence or rejection to the event’s categorization within 24-hours after notification, then proceed with the event’s initial categorization.
- 4.6.7 Facility Manager: Use applicable ICP organizational call list to notify essential personnel.
- 4.6.8 Facility Manager: Provide additional information, not available at the time of notification, in follow-up communication.
- 4.6.9 Facility Manager: If the occurrence is for an NRC-licensed facility, go to Step 4.9.
- 4.7 Unreviewed Safety Question (USQ) and Price Anderson Amendment Act (PAAA) Screening**
- 4.7.1 Facility Manager: Consider operational occurrences as a possible source of new information/discovery for nuclear facilities, in accordance to MCP-123, “Unreviewed Safety Questions.”
- 4.7.2 Facility Manager: Consider operational occurrences as a potential PAAA noncompliance by ensuring a compliance coordinator evaluates all occurrence reports, that results in an ICARE DR, in accordance with MCP-2547, “Identification, Reporting and Resolution of Price-Anderson and Worker Safety and Health Noncompliances,” and attach the screening report to the occurrence report’s ICARE. (See also MCP-598.)
- 4.8 Written Notification Report Preparation and Submittal**
- 4.8.1 Facility Manager: Process the written *notification report* and provide follow-up notification as necessary.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 16 of 76
---	--

NOTE 1: *Safeguards and security events are not reported in ORPS unless they involve other consequences that meet the ORPS reporting criteria presented herein.*

NOTE 2: *DOE O 232.2 or MCP-190 does not absolve the cognizant parties from making required reports to other agencies.*

4.8.2 Facility Manager: Prepare and submit the notification report within the time limits specified below (refer to Appendix B) and using Appendix D, “Instructions for Completing an Occurrence Report;” including all notification report information.

4.8.2.1 Document date(s) and time(s) (if times are known) for all notifications.

4.8.2.2 If the Significance Category is Operational Emergency (OE) or **1**, transmit notification report no later than (NLT) the *close-of-business* (COB) (see def.) the next *business day* (see def.) (for weekends and holidays, not to exceed 80 hours from the time of categorization); include information from Step 4.6.1.

4.8.2.3 If the Significance Category is **R** or **2**, then transmit the notification report NLT COB the next business day after categorization.

4.8.2.4 If the Significance Category is **3**, then transmit the notification report NLT COB two business days after categorization.

4.8.2.5 If the Significance Category is **4**, then go to Step 4.9 to process the Notification/Final report (also known as the “Short Form Report.”)

NOTE: *Occurrence reports containing classified information, Unclassified Controlled Nuclear Information (UCNI), or other controlled information must not be entered into the ORPS database.*

4.8.3 Facility Manager: If time permits, then consider having the ORPS SME review the notification report prior to submittal.

4.8.4 Facility Manager: Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the ORPS notification report — to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information; fields 14, 15 and 16.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 17 of 76

- 4.8.5 Facility Manager Administrator/ORPS Preparer: If the FM is NOT the notification report's originator/transmitter, then obtain the FM's documented approval on a hardcopy format of the ORPS or via e-mail.
- 4.8.6 Facility Manager: If report contains no classified information, transmit ORPS report.
- 4.8.7 Facility Manager: If the report contains classified information, handle according to Battelle Energy Alliance (BEA) LWP-11200, "Classified Matter Protection and Control," and BEA MCP-307, "Classified Information System Security."
- 4.8.7.1 Distribute the report in "hard copy" format to DOE-ID and necessary company personnel only.
- 4.8.7.2 Enter a version of the report that contains no classified information on ORPS within the time frames identified in Step 4.8.2.
- 4.8.8 Facility Manager: Provide follow-up notifications to the previously identified personnel, in accordance with Step 4.6.1 or 4.6.3 or 4.6.5 (as applicable) of any degradation in safety levels or changes from one category level to another.
- 4.8.9 Facility Manager: Evaluate facility-specific occurrences to determine if an occurrence should be immediately briefed to operations, or included in a timely order, provided as training, or provided as shift turnover (pre-job) information.

4.9 Processing a Significance Category 4 Report

- 4.9.1 Facility Manager: Prepare and submit a short-form report within two business days of categorization using instructions in Appendix D, "Instructions for Completing an Occurrence Report."
- 4.9.2 Facility Manager: If time permits, consider having the ORPS SME review the report prior to submittal.
- 4.9.3 Facility Manager: Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the notification/final ORPS report – to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information; fields 14, 15 and 16.
- 4.9.4 Facility Manager: Obtain an ICARE Potential Issues Report (PIR) number, in accordance to MCP-598, and record in User Field number 2, the PIR/ICARE number.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 18 of 76
---	--

- 4.9.5 Facility Manager Administrator/ORPS Preparer: If submitting the report for the FM, then obtain the FM's documented approval on a hardcopy format of the ORPS report or via e-mail.
- 4.9.6 Facility Manager: If report contains no classified information, transmit ORPS report.
- 4.9.7 Facility Manager: If the report contains classified information, handle according to the company procedures BEA LWP-11200, "Classified Matter Protection and Control" and BEA MCP-307, "Classified Information System Security."
- 4.9.7.1 Distribute the report in hard copy to DOE-ID and necessary company personnel only.
- 4.9.7.2 Enter a version of the report that contains no classified information on ORPS.
- 4.9.8 Facility Manager: Process Significance Category 4 occurrences in accordance with MCP-598, "Corrective Action System," and if needed, process a nonconformance report (NCR) in accordance with MCP-538, "Control of Nonconforming Items," for suspect/counterfeit items or other nonconforming items.

NOTE: *Entering the ORPS report number (i.e. EM-ID--CWI-LANDLORD-2008-0001) into an ICARE field, preferably in the "Describe The Problem" field, greatly aids in connecting the ORPS report to ICARE.*

4.10 Event Investigation and Cause Analysis

- NOTE 1:** *When determining level-of-effort to investigate an occurrence's cause(s), a graded approach is based on the significance category, severity, or risk associated with the event or condition.*
- NOTE 2:** *The graded approach is based on whether the event was directly caused by DOE operations or resulted from non-DOE operations, or natural phenomena; for example, an earthquake.*
- NOTE 3:** *For operational emergencies, in general, the investigation, problem analysis, and corrective action process should parallel the process for Significance Category 1 occurrences.*

- 4.10.1 Facility Manager: Perform level of investigation and cause analysis as specified in Appendix B, "Occurrence Reporting Model."
- 4.10.2 Facility Manager: If the event is a Significance Category 3 or higher, then conduct a Fact Finding meeting in accordance with MCP-165, "Initial Fact Finding to Support Event Investigation."

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 19 of 76
---	--

NOTE : *Appendix C, Cause Analysis Tree, provides causal analysis codes; additionally, full Cause Code descriptions and examples are recorded in STD-1113, “Cause Analysis And Corrective Action Development.”*

- 4.10.3 Facility Manager: If the Significance Category is an Operational Emergency (**OE**), 1 or **R** (Recurring), then conduct an FCA (*see def.*) in accordance with STD-1113. (Refer also to Appendix B, Occurrence Reporting Model.)
- 4.10.4 Facility Manager: If the Significance Category is a 2, then conduct, at a minimum, a DACA (*see def.*) in accordance with STD-1113. (Refer also to Appendix B, Occurrence Reporting Model and MCP-2547.)
- 4.10.5 Facility Manager: If the Significance Category is a 3, then conduct, at a minimum, an ACA (*see def.*) in accordance with STD-1113. (Refer also to Appendix B, Occurrence Reporting Model, and MCP-2547.)
- 4.10.6 Facility Manager: For occurrences related to an injury or illness, go to MCP-49, “Occupational Injury/Illness Reporting and Followup,” for additional reporting and internal investigation requirements.

4.11 Submitting a Final Report

- 4.11.1 Facility Manager: Prepare the Final Report by following the timeline in Appendix B and guidance in Appendix D.
- 4.11.2 Facility Manager: Enter the ICARE number and corrective action item number into field #39.

NOTE: *Entering the ORPS report number (i.e. EM-ID--CWI-LANDLORD-2008-0001) into an ICARE text field, preferably in the “Describe The Problem” field, greatly aids in connecting the ORPS report to ICARE.*

- 4.11.3 Facility Manager: In User Field number 1, enter the FM’s organization number (i.e., 5400).
- 4.11.4 Facility Manager: Submit a copy of the draft final report to the ORPS SME and applicable DOE-ID facility representative (*see def.*) for review no later than 35 days after categorization and request comments be returned electronically (e-mail) within five days.
- 4.11.5 ORPS SME: Review draft final report for investigation adequacy, appropriate classification, event description, thoroughness of causal analysis, and alignment of the corrective action plan with the event and causal analysis.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 20 of 76

- 4.11.5.1 Provide written report comments to the facility manager or ORPS report preparer by e-mail or hard copy correspondence.
- 4.11.6 Facility Manager: If the applicable DOE-ID facility representative DID NOT submit their comments to the Significance Category 3 and above occurrence report by day 44 after categorization (one day prior to final submittal), then document in the “Evaluation By Facility Manager” field (field #33) the DOE-ID facility representative did not provide comments, and submit final report, prior to or on day 45 after categorization (not to exceed 45-days).
- 4.11.7 Facility Manager: Address ORPS SME and DOE-ID facility representative comments, then approve and submit final report on the ORPS database by going to and performing Steps 4.8.4 through 4.8.8 prior to the time limits specified in Appendix B.
- 4.11.7.1 Facility Manager Administrator/ORPS Preparer: If submitting the final report for the FM, then obtain the FM’s documented approval on a hardcopy format of the ORPS report or via e-mail.
- 4.11.7.2 Facility Manager: Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the final ORPS report; to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information (fields 14, 15 and 16).
- 4.11.7.3 Facility Manager: If submitting a Significance Category 3 ORPS report, notify, by voice or e-mail communication, the applicable DOE-ID facility representative within 24-hours after final submittal.
- 4.11.8 Facility Manager: Attach an electronic (scanned or other) copy of the final ORPS report (Significance Category 3 and above) and associated case file material (such as the fact-finding meeting report, cause analysis, PAAA screening) to its corresponding deficiency report (DR) ICARE(s).

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 21 of 76

4.11.9 Facility Manager: Enter corrective actions into ICARE, in accordance with MCP-598, using the same ORPS report corrective action item language.

NOTE 1: *MCP-598, allows additional supplemental information, be included at the end of the corrective action item statement, however, the original ORPS corrective action statement must repeat in ICARE.*

NOTE 2: *Appendix D, Instructions for Completing an Occurrence Report, no. 39, gives guidance on action item language.*

4.11.10 Facility Manager: For Significance Category **1, 2, OE** or **R** reports (these are tied to a Significant Deficiency Report [DR] ICARE), schedule a corrective action effectiveness validation/assessment, if required, in accordance with MCP-598.

4.12 Submitting an Update Report

4.12.1 Facility Manager: If a change occurs to the Reporting Criteria or Significance Category, either lower or higher, complete the following:

NOTE 1: *Re-categorizing an event does not initiate a new time frame from the initial categorization date.*

NOTE 2: *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).*

4.12.1.1 Make notifications in accordance with Step 4.6.

4.12.1.2 Discuss at the end of the “Description of Occurrence” field (field #25), the Reporting Criteria or Significance Category change (or both).

4.12.1.3 Document in the Evaluation by Facility Manager field (field #33), why or how this new information came forth.

4.12.1.4 Approve and submit the Update Report within the timeframe for the new Reporting Criteria or Significance Category (Appendix A and B) by performing Steps 4.8.4 through 4.8.6.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 22 of 76

4.12.2 Facility Manager: If any significant and new information about the occurrence comes forth, complete the following:

Note: *Recurring consequences and the identification of additional component defects must be included in the update, if applicable.*

- 4.12.2.1 Record the significant and new information in the “Description of Occurrence” field (field #25).
- 4.12.2.2 Document in the Evaluation by Facility Manager field (field #33), why or how this new information came forth.
- 4.12.2.3 Approve and submit the Update Report by performing Steps 4.8.4 through 4.8.6.

4.12.3 Facility Manager: If the required analysis cannot be completed within 45-calendar days after initial categorization, complete the following:

- 4.12.3.1 Notify the applicable DOE-ID facility representative that the Final Report will be delayed, and communicate the estimated date to submit the Final Report.
- 4.12.3.2 Provide in the “Evaluation by Facility Manager” field (field #33):
 - A. A detailed explanation (why and how) for the delay
 - B. Estimated date to submit the Final Report.
- 4.12.3.3 Within the 45-day timeframe after initial categorization, approve and submit the Update Report to extend Final Report submission, by performing Steps 4.8.4 through 4.8.6.
- 4.12.3.4 Submit a copy of the draft Final Report to the ORPS SME and the applicable DOE-ID facility representative 10 days prior to the updated due date, refer to Section 4.11.

4.13 Canceling a Written Notification Report

NOTE 1: *Canceling a notification report requires the same approval process as final reports.*

NOTE 2: *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).*

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 23 of 76

- 4.13.1 Facility Manager: If further investigation reveals the occurrence does not meet the thresholds in Appendix A, and a notification report was submitted, cancel the occurrence report by performing the following:
- 4.13.1.1 If the occurrence report is a Significance Category 3 or higher, then obtain concurrence from the DOE-ID facility representative.
 - 4.13.1.2 Select report type “canceled” in the ORPS database (Field 22).
 - 4.13.1.3 Provide justification for cancellation in “Description of Occurrence” field #25 (if needed, add additional information in the “Evaluation by Facility Manager” field (field #33).
 - 4.13.1.4 Select “N” in “Further Evaluation Field,” field #34.
 - 4.13.1.5 Submit as a final report on the ORPS database by performing Steps 4.8.3 through 4.8.9.

4.14 DOE Rejected Final Reports

- 4.14.1 Facility Manager: If a DOE-ID facility representative or the DOE program manager rejects a final report, then prepare and submit a revised final report within 21 *days* after rejection in accordance with Section 4.11 and 4.16, as applicable.
- 4.14.2 Facility Manager: If a revised final report cannot be submitted within 21 *days* after rejection, submit an update report in accordance to Sections 4.12 and 4.16, as applicable.

4.15 Make Editorial (Text) Changes to a Final ORPS Report

NOTE: *Editorial (text) changes (see def.) are those changes made only to wording in a text field, to modify corrective action items (such as target completion dates and action item scope), or make other modifications, EXCEPT a change to the significance category; this will result in the submittal of either a revised Update/Final Report or a revision to a Final Report.*

Significance Category OE, 1, R or 2

- 4.15.1 Facility Manager: If modifying corrective actions, which include scope (purpose and intent) or target end dates for a Significance Category OE, 1, R or 2 report, then perform the following:
- 4.15.1.1 Obtain DOE-ID facility representative approval for the corrective action changes.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 24 of 76

- 4.15.2 Facility Manager: From the ORPS Data Entry screen, key in the applicable ORPS report identification number, select “Data Change,” followed by “Editorial Change.”
- 4.15.2.1 Revise ORPS report.
- 4.15.2.2 Provide justification for corrective action changes and other field text changes (such as Description of Occurrence or Description of Cause, in Field #33, “Evaluation by Facility Manager.”
- 4.15.2.3 Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the revised final ORPS report – to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information; fields 14, 15 and 16.
- 4.15.2.4 Electronically resubmit the revised ORPS report.
- 4.15.2.4.1 Facility Manager Administrator/ORPS Preparer: If submitting the revised final report for the FM, then obtain the FM’s documented approval on a hardcopy format of the ORPS report or via e-mail.
- 4.15.2.5 If modifying ORPS corrective actions, then also modify the corresponding ICARE issue and its action item(s); to match language changes.
- 4.15.2.6 If the ORPS corrective actions satisfy PAAA Noncompliance Tracking System (NTS) corrective actions, then follow the process described in MCP-2547, “Identification, Reporting and Resolution of Price-Anderson Noncompliances.”

Significance Category 3

- 4.15.3 Facility Manager: If modifying corrective actions, which include scope (purpose and intent) and target end dates for a Significance Category 3 report, then perform the following:
- 4.15.3.1 As a courtesy, notify the applicable DOE-ID facility representative of corrective action changes.
- 4.15.4 Facility Manager: From the ORPS Data Entry screen, key in the applicable ORPS report identification number, select “Data Change,” followed by “Editorial Change.”
- 4.15.4.1 Revise ORPS report.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 25 of 76
---	--

- 4.15.4.2 Provide justification for corrective action changes, and other field text changes (such as Description of Occurrence or Description of Cause, in Field #33, “Evaluation by Facility Manager.”
- 4.15.4.3 Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the revised final ORPS report – to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information; fields 14, 15 and 16.
- 4.15.4.4 Electronically resubmit the revised ORPS report.
- 4.15.4.4.1 Facility Manager Administrator/ORPS Preparer: If submitting the revised final report for the FM, then obtain the FM’s documented approval on a hardcopy format of the ORPS report or via e-mail.
- 4.15.4.5 If modifying ORPS corrective actions, then also modify the corresponding ICARE issue and its action item(s); to match language changes.

Significance Category 4

- 4.15.5 Facility Manager: If modifying a Significance Category 4 report, then perform the following:
- 4.15.5.1 If the Significance Category 4 report has corrective actions that need modifying (which were optional), then go to and perform the same actions for a Significance Category 3 report, step 4.15.3.
- 4.15.5.2 From the ORPS data entry screen, key in the applicable ORPS report identification number, select “Data Change,” followed by “Editorial Change.”
- 4.15.5.3 Revise ORPS report.
- 4.15.5.4 Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the revised final ORPS report – to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information; fields 14, 15 and 16.
- 4.15.5.5 If text changes modifies or updates the report’s “Description of Occurrence, or other fields are populated with updated

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 26 of 76
---	--

information, then provide justification for the change in Field #33, “Evaluation by Facility Manager.”

4.15.5.6 Electronically resubmit the revised ORPS report.

4.15.5.6.1 Facility Manager Administrator/ORPS Preparer: If submitting the revised final report for the FM, then obtain the FM’s documented approval on a hardcopy format of the ORPS report or via e-mail.

4.16 Back Staging A Report – To Change a Reporting Criteria’s Significance Category for a Final Report

4.16.1 Facility Manager: Notify the applicable DOE-ID facility representative an occurrence report will be backstaged, and the report’s original significance category will change.

4.16.2 Facility Manager: If making corrective action changes or text changes only, go to step 4.15.

4.16.3 Facility Manager: From the ORPS Data Entry screen key in the applicable ORPS report identification number, select “Data Change,” followed by “*Back Stage a Report.*”

NOTE: *Back staging a report is required when a final report’s significance category changed or to submit a rejected report; this reopens the occurrence report as an Update Report in Data Entry.*

4.16.4 Facility Manager: Ensure, and document in the ORPS database, an Authorized Derivative Classifier review occurred prior to submitting the final ORPS report – to preclude contaminating the database with classified, UCNI, official-use-only (OUO), or other controlled information; fields 14, 15 and 16.

4.16.5 Facility Manager: Make needed changes and resubmit the report as an update/final report.

5. RECORDS

Occurrence Reports

Related Correspondence

Technical Data

Personnel Statements

Other Relevant Information, such as Log Sheets, Work Permits, etc.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 27 of 76
---	--

NOTE: *The Records Schedule Matrix, located on the intranet at http://edms.inel.gov/docs/matrix/mtx_menu.html, and the applicable facility, organization, program, or project records management plan and records type list provide current information on uniform file codes, disposition authorities, and retention periods for these records.*

6. DEFINITIONS

NOTE: *Additional definitions not used in this MCP, but which are also defined for ORPS use, are in DOE O 232.2.*

Apparent Cause Analysis — ACA. An analysis performed by a person trained to 00TRN779, that determines the most probable causes(s), that explain(s) why the event happened, based on readily available information at the time of the investigation, that management has the control to fix, which if adequately addressed, will remedy the problem. Refer to MCP-598, “Corrective Action System” and STD-1113, “Cause Analysis and Corrective Action Development.”

Area Project Manager/Functional Support Manager (APM/FSM). The director-level manager responsible and accountable for resolution of assigned issues, as defined in PDD-1005.

Business day. Business day is the normal administrative day (e.g., Monday through Thursday, 0700 to 1730 local time) during which the company conducts its normal work activities. 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. Business day is also known as “Working day.”

Close-of-Business (COB). Hour when the business or calendar day ends, 1730 hours, or 5:30 p.m. See “Business day,” and “Days.”

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, an error in analysis or calculation; anomalies associated with design or performance; or items indicating a weakness in the management process are all conditions.

Days. Consecutive, sequential days, without consideration for “business days.” Also known as “calendar days.”

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.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 28 of 76

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.

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 are those personnel assigned to the facility and cognizant of the area in which the event or condition is identified.

For occurrence reports submitted under:

- Group 10, “Management Concerns/Issues,” Sequence Number (2), or
- Recurring (Significance Category R),

Then the event discovery date and time is when facility or ICP management makes the decision to report under this reporting criterion.

Documented Apparent Cause Analysis —DACA. An analysis performed by a qualified cause analyst (Qualification Code QCCAUSAN) using a minimum of one STD-1113 analytical method to identify causal factors and recommendations which, if adequately implemented, will preclude, or greatly reduce the probability of recurrence. Refer to STD-1113, “Cause Analysis and Corrective Action Development.”

Dose equivalents. Refer to PRD-183-G, “Radiological Control Manual – Glossary,” and PRD—183, “Radiological Control Manual - Contents and Acronyms.”

Editorial (text) changes. Those occurrence report changes made only to wording in text fields, to modify corrective action items (such as target completion dates and action item scope/intent/purpose), or make any other modification, EXCEPT a change to the significance category; this will result in the submittal of either a revised Update/Final Report, or a revision to a Final Report.

Electrically Safe Work Conditions. 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.

Event. Something significant and real-time that happens (e.g. injury, pipe break, valve failure, loss of power, environmental spill, earthquake, tornado, flood). Event and Occurrence are synonymous. See also “*Occurrence*” and “*Condition*.”

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 29 of 76

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.

Facility Manager/Facility Manager Designee. That 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 and to authorize work within a facility. A facility manager may also be a functional support manager if the ORPS is Sitewide (e.g., recurring events that are programmatic in nature), or if deemed appropriate upon their concurrence/acceptance of the event, after a discussion with the FM where the event occurred.

Facility Manager Administrator (FMA). An administrative or clerical individual who prepares or transmits an occurrence report for a Facility Manager/Facility Manager Designee, in addition to being able to access all reports on the ORPS database.

Reports transmitted by a Facility Manager Administrator are signed in hard copy by the appropriate Facility Manager (or designee), or the Facility Manager or Facility Manager designee sends her/his concurrence sent to the Facility Manager Administrator via e-mail.

The FMA has full read/write and final report submittal rights, just as the FM and his/her designee, however the notification and final report, and revisions to a final report, are to include FM's/FM Designee's signature on the ORPS hardcopy report, or concurrence given via e-mail. (see Basis Document, or refer to US Department Of Energy Operational Event Information Systems Registration Form; ORPS User Classifications attachment; Facility Manager, Designee, Administrator, or Preparer definitions).

Facility Representative. For each major facility or group of lesser facilities, a DOE-ID individual or designee assigned responsibility by the Head of Field Element/Operations Organization (including National Nuclear Security Administration [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 DOE O 232.2.

Formal Cause Analysis — FCA. An analysis performed by a qualified cause analyst (Qualification Code QCCAUSAN), with a peer review by another qualified cause analyst. The analysis uses, at a minimum, two STD-1113 analytical methods to identify causal factors and recommendations which, if adequately implemented, will preclude, or greatly reduce the probability of recurrence. Refer to STD-1113, "Cause Analysis and Corrective Action Development."

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 30 of 76

Hazardous 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.

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.

In-Patient Hospitalization. Admission to a hospital requiring at least one overnight stay. This would include admission for purposes of observation only.

Item.

1. 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.
2. 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.

Lessons learned. A “good work practice” or innovative approach that is identified and shared, or an adverse work practice or experience that is shared to avoid recurrence.

For an ORPS report, the Lessons Learned field describes what lessons the local contractor -- and any DOE contractor -- can learn from this occurrence, in order to help similar events from happening. Refer also to Appendix B, Occurrence Reporting Model, Lessons Learned column; and Appendix D, Instructions for Completing an Occurrence Report, item number 36.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 31 of 76

Member of the public. Persons who are not occupationally associated with the DOE facility operations (i.e., persons whose assigned occupational duties do not require them to enter the DOE site).

Notification report. The initial documented report to DOE of an event or condition that meets the reporting criteria defined in DOE O 232.2.

NOTE 1: *Safeguards and security events are not reported in ORPS unless they involve other consequences that meet the ORPS reporting criteria presented herein.*

NOTE 2: *DOE O 232.2 or MCP-190 does not absolve the cognizant parties from making required reports to other agencies.*

Nonreportable event. All events that are captured in other company reporting and tracking systems such as ICARE; these are events that are not recorded in ORPS, but the reporting organization has determined to include in the required ORPS Performance Analysis activity.

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.

Occurrence. 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 DOE O 232.2 or determined to be recurring through performance analysis are occurrences. Occurrence and Event are synonymous. See also “*Event*,” and “*Condition*.”

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.

Occurrence report. A documented evaluation of an event or condition 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.

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

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).

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 32 of 76

Transportation events with injuries or fatalities may also require reporting in accordance with Group 2 criteria.

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.

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

On-Site transportation event. Movement of materials not in commerce and subject to DOE on-Site procedures and safety requirements.

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).

ORPS Preparer. A Preparer is a person who, in addition to accessing all reports on the ORPS database, can prepare, but cannot transmit any occurrence reports — the database buttons to submit a notification report, an update, final report, or revision to a final report, are withdrawn (blocked out). ORPS reports must then be transmitted by a Facility Manager/Facility Manager Designee, or Facility Manager Administrator.

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).

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 which 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.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 33 of 76

Personnel exposure. An incident of contact or encounter with a hazardous chemical, 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 of, or combination of, the hazards.

Pollutant. Any material requiring a permit for release into the environment.

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).

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.

Program Manager (DOE). The individual designated 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 holds signature authority to provide technical direction through Heads of Field Element/Operations Offices (including NNSA) to operating personnel for these facilities.

Prompt Notification. Timely reporting of the occurrence to the DOE Field Office (which generally is the project's or facility's applicable DOE Field Office Facility Representative [Fac. Rep.]), and the DOE Headquarters Operations Center — as required by the Significance Category — and the reporting criteria of the occurrence.

Protective clothing. Clothing identified for radiological use such as yellow coveralls, hoods, booties, rubber overshoes, and PC gloves. These are articles designated for radiological use and are removed at the exit of the radiological area. Company supplied coveralls, laboratory coats, modesty clothing, street cloths, or other clothing not identified as anti-contamination (anti-C) clothing are to be considered personal clothing for the purposes of ORPS reporting.

Recurring event. Recurrent ORPS events are two or more reportable events, which are similar in both the nature of the event and the causes.

- 1) Recurrent events need not occur at the same site area to be determined “recurrent.”
- 2) “Nature of the event” does not refer to the Reporting Criteria (Field 14) of the ORPS report. It refers to the activities, systems, structures and components involved in the event.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 34 of 76

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.

Reportable event. Occurrence/event to be reported in accordance with the criteria defined in DOE Order 232.2.

Reportable quantity. For any Comprehensive Environmental Response, Compensation and Liability Act hazardous substance, including radionuclides and Superfund Amendments and Reauthorization Act Title 3 extremely hazardous substances, with quantities established in 40CFR Part 302 and Part 355 respectively, release of which requires notification unless Federally permitted.

Safety-class structures, systems, or components (safety-class SSC). The structures, systems, or components, including portions of process systems, whose preventative or mitigating function is necessary to limit radioactive hazardous material exposure to the public, as determined from safety analysis. [10 CFR 830.3]

Safety-significant structures, systems, or components (Safety-significant SSC). The structures, systems, or components that are not designated as safety class structures, systems, or components, but whose preventative or mitigative function is a major contributor to defense in depth and/or worker safety as determined from safety analysis. (10CFR830.3)

Secretarial Officer. Secretarial Officers are the Secretary, Deputy Secretary, and Under Secretaries; and the Assistant Secretaries and Staff Office Directors reporting to the Secretary either directly or through the Deputy Secretary or Under Secretary. The following designations are also used to identify Secretarial Officers with specific responsibilities in various areas: (1) a Program Secretarial Officer (PSO) is an Assistant Secretary, Office Director, or NNSA Deputy Administrator. In the context of field operations, a PSO funds work at a particular site, facility or laboratory and is a “customer” of the field office. (2) A Lead Program Secretarial Officer (LPSO) is a PSO to whom designated field offices directly report and who has overall landlord responsibilities for the assigned direct reporting elements. (3) A Cognizant Secretarial Officer (CSO) is a term used in the context of field operations to designate a PSO, not the LPSO, who is responsible for a laboratory or bounded set of facilities within a field office’s jurisdiction.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 35 of 76

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).

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)

Transportation event. Any real-time occurrence involving any of the following transportation activities: material classification, packaging, marking, labeling placarding, temporary storage incident to transport, shipping paper preparation, loading/unloading, separation/segregation, blocking and bracing, routing, accident reporting, driver and vehicle qualifications, movement of materials, and communications and notifications.

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)

7. REFERENCES

10 CFR 20, “Standards for Protection Against Radiation”

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 36 of 76
---	--

10 CFR 72, “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste”

10 CFR 72.512.1, “Department of Energy Delegation Order”

10 CFR 835, “Management and Administration of Radiation Protection Programs”

10 CFR 851, “Worker Safety and Health Program”

40 CFR 302, “Designation, Reportable Quantities, and Notification”

40 CFR 355, “Emergency Planning and Notification”

DOE Order 226.1B, “Implementation of Department of Energy Oversight Policy.”

DOE O 231.1B, “Environment, Safety and Health Reporting”

DOE Order 232. 2, “Occurrence Reporting and Processing of Operations Information”

DOE O 470.4B, Safeguards and Security Program

DOE O 458.1 Chg. 2, “Radiation Protection of the Public and the Environment”

GDE-5, “Event Scene Evidence Preservation”

MCP-49, “Occupational Injury / Illness Reporting and Followup”

MCP-123, “Unreviewed Safety Questions”

MCP-165, “Initial Fact Finding To Support Event Investigation”

MCP-291, “Classified Matter Protection and Control”

MCP-307, “Classified Automated Information System Security”

MCP-538, “Control of Nonconforming Items”

MCP-598, “Corrective Action System”

MCP-2547, “Identification and Resolution of Price Anderson Noncompliances”

MCP-2924, “NRC Licensee Event and Condition Reporting”

MCP-2928, “10CFR21 Evaluation and Reports”

MCP-3786, “Incidents of Security Concern Procedure”

NFPA 70E, “Standard for Electrical Safety in the Workplace”

PDD-1005, “ICP Management and Operations Manual”

PLN-2012, “Emergency Management - ICP Emergency Plan/RCRA Contingency Plan”

PRD-5051, “Chapter IX – Lockout and Tagout”

STD-1113, “Cause Analysis and Corrective Action Development.”

U.S. Department of Labor, Occupational Safety & Health Administration, Standards – Title 29 Code of Federal Regulations, “The Control of Hazardous Energy (Lockout/Tagout)” – 1910.147

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 37 of 76
---	--

U.S. Department of Labor, Occupational Safety & Health Administration, Standards – Title 29 Code of Federal Regulations, “Electric Power Generation, Transmission, and Distribution” – 1910.269

U.S. Department of Labor, Occupational Safety & Health Administration, Standards, Safety and Health Regulations for Construction – Title 29 Code of Federal Regulations, “Lockout and Tagging of Circuits” – 1926.417

8. APPENDIXES

Appendix A, Reporting Criteria

Appendix B, Occurrence Reporting Model

Appendix C, Causal Analysis Tree

Appendix D, Occurrence Report Instructions

Appendix E, Procedure Basis

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 38 of 76**Appendix A
Reporting Criteria**

1. An occurrence/event can meet multiple reporting criteria that establish it as an occurrence. All of the specific reporting criteria applicable for an occurrence must be identified. Some criteria are “secondary” in that they complement other reporting criteria that require occurrence reporting. In these cases, all of the applicable criteria must be recorded.
2. The reporting criteria presented below list a specific significance category (SC) for each criterion. These are designated as “OE” for operational emergencies, or 1, 2, 3, or 4.
3. Operational emergencies, Significance Category 1, and some other occurrences in lesser significance categories require prompt notification to the DOE HQ OC.
Asterisks (*) next to the significance categories below denote those occurrences requiring prompt notification to the DOE HQ OC. Step 4.5 of this MCP directs the prompt notification requirements.
4. DOE O 470.4, “Safeguards and Security Program,” and MCP-3786, “Incidents of Security Concern Procedure,” address the reporting of safeguards and security events. Such events are no longer reported in ORPS unless they involve other consequences that meet the ORPS reporting criteria presented herein.

Major Criteria Groups. The 10 major groups of categorized occurrences are as follows:

- Group 1 - Operational Emergencies
- Group 2 - Personnel Safety
- Group 3 - Nuclear Safety Basis
- Group 4 - Facility Status
- Group 5 - Environmental
- Group 6 - Contamination/Radiation Control
- Group 7 - Nuclear Explosive Safety
- Group 8 - Transportation
- Group 9 - Noncompliance Notifications
- Group 10 - Management Concerns/Issues.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 39 of 76
---	--

GROUP 1 – OPERATIONAL EMERGENCIES		
Sequence Number	CWI NOTE: <i>NOTE: For NRC-licensed facilities, the reporting criteria and process found in MCP-2924, Appendix A Group 1 – Operational Emergencies provides actions to take for reportability.</i>	Significance Category
(1)	An Operational Emergency not requiring classification, as defined in DOE 151.1C, Chapter 5, Paragraph 2.	*OE
(2)	An Alert, as defined in DOE 151.1C, Chapter 5, Paragraph 3a.	*OE
(3)	A Site Area Emergency, as defined in DOE 151.1C, Chapter 5, Paragraph 3b.	*OE
(4)	A General Emergency, as defined in DOE 151.1C, Chapter 5, Paragraph 3c.	*OE

GROUP 2 – PERSONNEL SAFETY AND HEALTH		
Sequence Number	Subgroup A – Occupational Injuries	Significance Category
(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.	*1
(2)	Any single occurrence requiring in-patient hospitalization of three or more personnel.	*1
(3)	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. DOE NOTE: <i>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.</i>	2
(4)	Any single occurrence resulting in three or more personnel having Days Away, Restricted or Transferred (DART) cases per 29 CFR Section 1904.7, <i>Recordkeeping Forms and Recording Criteria.</i>	2
(5)	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. DOE NOTE: <i>Severe damage is generally considered to have occurred if surgery is required to correct the damage.</i> 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.	3

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 40 of 76
---	--

GROUP 2 – PERSONNEL SAFETY AND HEALTH		
Sequence Number	Subgroup B – Occupational Exposure	Significance Category
	DOE NOTE: See “Personnel Exposure” in Definitions in DOE Order 232.2. 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.	
(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.	*1
(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, <i>Recordkeeping Forms and Recording Criteria</i> .	2
(3)	Personnel exposure to chemical, biological or physical hazards that exceeds 10 times the limits established in 10 CFR Part 851, <i>Worker Safety and Health Program</i> (see 10 CFR Section 851.23, <i>Safety and Health Standards</i>) or exceeds levels deemed immediately dangerous to life and health (IDLH).	*2
(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, <i>Worker Safety and Health Program</i> (see 10 CFR Section 851.23, <i>Safety and Health Standards</i>), 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.	3
(5)	Any exposure including chronic [exposure*] resulting in a serious occupational injury. A serious occupational injury is an occupational injury that: <ul style="list-style-type: none"> 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. *Added by CWI ORPS SME for clarification.	3
(6)	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).	4

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 41 of 76
---	--

Sequence Number	Subgroup C – Fires	Significance Category
(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. DOE NOTE: <i>Facility-specific documents need to define what constitutes the primary confinement/containment boundary.</i>	*1
(2)	Any fire emergency or fire incident in a nuclear facility that: <ul style="list-style-type: none"> 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. DOE NOTE: <i>The activation or degradation of Safety-Class and Safety-Significant fire suppression systems are addressed by Group 4 Criteria.</i>	*2
(3)	Any fire emergency or fire incident in a non-nuclear facility that: <ul style="list-style-type: none"> 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. 	*3
(4)	Any fire in a nuclear facility	4
(5)	Any wildland fire (e.g., forest fire, grassland fire) or other fire outside of a DOE facility that has the potential to threaten the facility.	*4
Sequence Number	Subgroup D – Explosions	Significance Category
(1)	Any unplanned explosion within primary confinement/containment (see def.) boundaries of a nuclear facility. DOE NOTE: <i>Facility-specific documents need to define what constitutes a primary confinement/containment boundary.</i>	*1
(2)	Any unplanned explosion in a nuclear facility that disrupts normal operations in the facility.	*2
(3)	Any unplanned explosion in a non-nuclear facility that disrupts normal operations in the facility.	*3
Sequence Number	Subgroup E – Hazardous Electrical Energy Control	Significance Category
(1)	Any unexpected or unintended personal contact (burn, injury, etc.) with an electrical hazardous energy source (e.g., live electrical power circuit, etc.).	2
(2)	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

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 42 of 76
---	--

(3)	Any failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout, hazardous energy control program). CWI NOTE: Reportable events are those that fail to meet a provision from 29 CFR 1910.147, 29 CFR 1910.269, 29 CFR 1926.417, or NFPA 70E. Noncompliance with local procedures are deficient conditions, but not reportable under this criteria. When determining the basis of requirements for reportability considerations, PRD-5051 may be referenced to help in determining the basis for requirements.	4
-----	---	---

Sequence Number	Subgroup F – Hazardous Energy Control (Other Than Electrical)	Significance Category
(1)	Any unexpected or unintended personal contact (burn, injury, etc.) with a hazardous energy source (e.g., powered mechanical hazards, steam, pressurized gas).	2
(2)	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
(3)	Any failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout, hazardous energy control program). CWI NOTE: Reportable events are those that fail to meet a provision from 29 CFR 1910.147 or 29 CFR 1926.417. Noncompliance with local procedures are deficient conditions, but not reportable under this criteria. When determining the basis of requirements for reportability considerations, PRD-5051 may be referenced to help in determining the basis for requirements.	4

GROUP 3 – NUCLEAR SAFETY BASIS		
Sequence Number	Subgroup A – Technical Safety Requirement and Other Hazard Control Violations (excluding nuclear criticality)	Significance Category
	DOE NOTE: Report nuclear criticality events under Group 3, Subgroup C below. CWI NOTE: For NRC-licensed facilities, the reporting criteria and process found in MCP-2924 provides actions to take for reportability regarding Appendix A Group 3 - Nuclear Safety Basis Subgroup A, Technical Safety Requirement Violation.	
(1)	Any violation of a nuclear facility’s Technical Safety Requirement (or Operational Safety Requirement) Safety Limit.	*1
(2)	Any violation or noncompliance of a Hazard Category 1, 2, or 3 nuclear facility's TSR (or Operational Safety Requirement) Limiting Control Setting, Limiting Condition for Operations, Specific Administrative Control, or Surveillance Requirement. <u>DOE Exception:</u> 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.)	2

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 43 of 76
---	--

GROUP 3 – NUCLEAR SAFETY BASIS		
(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). <u>DOE Exceptions:</u> (a) <i>An event consisting solely of violation of a safety management program (e.g., quality assurance, personnel training) cited in the Documented Safety Analysis.</i> (b) <i>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.)</i>	3
(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.	4
Sequence Number	Subgroup B – Documented Safety Analysis Inadequacies CWI NOTE: <i>For NRC-licensed facilities, the reporting criteria and process found in MCP-2924 provides actions to take for reportability regarding Appendix A, Group 3 – Nuclear Safety Basis, Subgroup B, Documented Safety Requirement Inadequacies.</i>	Significance Category
(1)	Determination of a positive Unreviewed Safety Question (USQ) that reveals a currently existing inadequacy in the Documented Safety Analysis.	2
(2)	Declaration of a potential inadequacy of the documented safety analysis (a potential positive USQ), per 10 CFR Section 830.203(g). DOE NOTE: <i>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).</i>	3
(3)	Determination of a negative Unreviewed Safety Question (USQ).	4
Sequence Number	Subgroup C – Nuclear Criticality Safety Control Violations	Significance Category
(1)	A criticality accident occurs.	*OE
(2)	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.	*1
(3)	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.	2
(4)	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.	3

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 44 of 76
---	--

GROUP 4 – FACILITY STATUS		
<p>NOTE: <i>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.</i></p>		
Sequence Number	Subgroup A – Safety Structure/System/Component Degradation (Nuclear Facilities)	Significance Category
	<p>CWI NOTE 1: <i>For NRC-licensed facilities the reporting criteria and process found in MCP-2924 provides actions to take for reportability regarding, Appendix A Group 4 – Facility Status Subgroup A, Safety Structure/System/Component Degradation.</i></p> <p>DOE NOTE: <i>Performance degradation includes the absence of or deficiency with Design Features for which credit has been taken in the Documented Safety Analysis.</i></p> <p>CWI NOTE 2: <i>See the Safety SSC List on the ICP Nuclear Safety homepage located at http://icpweb1/nuclearsafety/nuclearsafety/SSC%20List.htm; see also def.</i></p>	
(1)	Performance degradation (see def.) 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.	3
(2)	Performance degradation of any safety-class SSC when not required to be operable.	4
Sequence Number	Subgroup B – Operations	Significance Category
(1)	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).	*2
(2)	Actuation of a Safety Class 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.	2
(3)	Actuation of a Safety Significant Structure, System, or Component (SSC), or its alarms, resulting from an actual unsafe condition. Spurious alarms (e.g., due to electronic noise, radon/thoron decay) should not be reported.	3
(4)	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 event fell under another reporting criterion, then the evacuation should be reported as well by noting multiple reporting criteria for the single occurrence.	3
(5)	A facility operational event which resulted in an adverse effect on safety, such as, but not limited to: <ul style="list-style-type: none"> 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
(6)	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 safety reasons, and requiring a corrective action(s) prior to continuing operations.	4

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 45 of 76
---	--

GROUP 4 – FACILITY STATUS		
NOTE: <i>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.</i>		
(7)	Any event or condition that would prevent immediate facility or offsite emergency response capabilities.	4
Sequence Number	Subgroup C – Suspect/Counterfeit and Defective Items (see def.) or Material DOE NOTE: <i>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.</i>	Significance Category
(1)	Discovery of any suspect or counterfeit item or material found in a Safety Class or Safety Significant Structure, System, or Component (SSC).	3
(2)	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.	4
(3)	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. DOE NOTE: <i>For NRC-licensed facilities the reporting criteria and process found in MCP-2924 provides actions to take for reportability regarding, Appendix A Group 4 – Facility Status Subgroup C, Suspect/Counterfeit and Defective Items or Material, Criterion (3) Safety Structure/System/Component Degradation</i>	4

GROUP 5 – ENVIRONMENTAL		
Sequence Number	Subgroup A – Releases (see def.)	Significance Category
(1)	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, <i>Designation, Reportable Quantities, and Notification</i> , 40 CFR Part 355, <i>Emergency Planning and Notification</i> , and CERCLA Section 101(10), <i>Federally Permitted Releases.</i>) DOE NOTE: <i>See Group 1, Criterion 1, for situations under which releases of hazardous or extremely hazardous substances would be reported under “Operational Emergencies.”</i>	*3
(2)	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. DOE NOTE: <i>See Group 1, Criterion 1, for situations under which releases of pollutants into the environment exceeding permit limits would be reported under “Operational Emergencies.”</i>	4

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 46 of 76
---	--

GROUP 5 – ENVIRONMENTAL		
(3)	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. DOE NOTE: <i>See Group 1, Criterion 1, for situations under which releases of oil would be reported under “Operational Emergencies.”</i>	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. DOE NOTE: <i>For this criterion, <u>discrete</u> means the event or operation has defined start and stop points less than seven full days apart.</i>	4
Sequence Number	Subgroup B – Ecological and Cultural Resources	Significance Category
(1)	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). DOE NOTE: <i>See Group 1, Criterion 1, for situations under which occurrences affecting ecological or cultural resources would be reported under “Operational Emergencies.”</i>	*2

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 47 of 76
---	--

GROUP 6 – CONTAMINATION/RADIATION CONTROL		
Sequence Number	Subgroup A – Loss of Control of Radioactive Materials	Significance Category
	<p>DOE NOTE: <i>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.</i></p> <p>CWI NOTE: <i>For NRC-licensed facilities the reporting criteria and process found in MCP-2924 provides actions to take for reportability regarding, Appendix A Group 6 – Contamination/Radiation Control, Subgroup A, Loss of Control of Radioactive Materials.</i></p>	
(1)	Identification of radioactive material offsite due to DOE operations/activities that exceeds applicable DOE limits (pursuant to DOE O 458.1 Chg 2, Radiation Protection of the Public and the Environment, dated 6-6-11).	*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 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.	2
(3)	<p>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.</p> <p>DOE NOTE: <i>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.</i></p>	3
Sequence Number	Subgroup B – Spread of Radioactive Contamination	Significance Category
(1)	<p>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.</p> <p>DOE NOTES:</p> <p>a) <i>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.</i></p> <p>b) <i>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 I, Criterion I.</i></p>	*2

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 48 of 76
---	--

GROUP 6 – CONTAMINATION/RADIATION CONTROL		
(2)	<p>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.</p> <p>DOE NOTES:</p> <ul style="list-style-type: none"> a) <i>This does not apply to surface contamination from residual radioactive material meeting applicable DOE-approved authorized limits.</i> b) <i>This does not apply to legacy radioactive contamination, which is to be reported under a separate criterion below.</i> c) <i>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.</i> d) <i>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.</i> 	2
(3)	<p>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 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.</p> <p>DOE NOTES:</p> <ul style="list-style-type: none"> a) <i>This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits.</i> b) <i>This does not apply to legacy radioactive contamination, which is to be reported under a separate criterion below.</i> c) <i>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.</i> d) <i>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).</i> 	3

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 49 of 76
---	--

GROUP 6 – CONTAMINATION/RADIATION CONTROL		
(4)	<p>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.</p> <p>DOE NOTES:</p> <p>a) <i>Legacy radioactive contamination is radioactive contamination resulting from historical operations that are unrelated to current activities.</i></p> <p>b) <i>This does not apply to contamination from residual radioactive material meeting applicable DOE-approved authorized limits.</i></p> <p>c) <i>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.</i></p> <p>d) <i>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.</i></p>	4
Sequence Number	<p>Subgroup C – Radiation Exposure</p> <p>DOE NOTE: <i>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.</i></p> <p>CWI NOTE: <i>For NRC-licensed facilities, the reporting criteria and process found in MCP-2924, Appendix A Group 6 – Contamination/Radiation Control Subgroup C, Radiation Exposure provides actions to take for reportability.</i></p>	Significance Category
(1)	<p>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.” (See def.)</p>	*1
(2)	<p>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).</p>	2
(3)	<p>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.</p>	3

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 50 of 76
---	--

GROUP 6 – CONTAMINATION/RADIATION CONTROL		
(4)	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 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.	3
Sequence Number	Subgroup D – Personnel Contamination	Significance Category
(1)	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.	*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.	2
(3)	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.	4

GROUP 7 – NUCLEAR EXPLOSIVE SAFETY		
Sequence Number	Nuclear Explosive Safety	Significance Category
(1)	Damage to a nuclear explosive that result in a credible threat to nuclear explosive safety.	*1
(2)	A near miss event during nuclear explosive operations where the potential for significant consequences was substantially increased, such as: <ul style="list-style-type: none"> a) Unauthorized introduction of electrical, mechanical, chemical, thermal, or electromagnetic energy into a nuclear explosive, b) Unauthorized compromise of a nuclear explosive safety feature when installed on a nuclear explosive, c) Inadvertent substitution of a nuclear explosive for a nuclear explosive-like assembly (NELA) or vice versa, or d) Violation of a nuclear explosive safety rule (NESR). 	2
(3)	An event during nuclear explosive operations that resulted in an adverse effect on safety, such as: <ul style="list-style-type: none"> a) Use of uncertified personnel or unauthorized equipment/tooling, or b) Violation of the two-person concept of operations. 	3

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 51 of 76
---	--

GROUP 8 – PACKAGING and TRANSPORTATION (see def.; also on site and off-site)		
Sequence Number	Packaging and Transportation	Significance Category
(1)	Any offsite transportation incident involving hazardous materials that would require immediate notice pursuant to 49 CFR Section 171.15(b). DOE NOTE: <i>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.</i>	*2
(2)	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: <ul style="list-style-type: none"> 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. 	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. †DOE NOTE: <i>Prompt notification is not required if the accident does not involve personnel injuries.</i>	*3†
(4)	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.	3
(5)	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).	3
(6)	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. DOE NOTES: <ul style="list-style-type: none"> a) <i>This occurrence may be reportable under Group 1, Criteria 2, 3, or 4.</i> b) <i>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.</i> 	3

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 52 of 76
---	--

GROUP 8 – PACKAGING and TRANSPORTATION (see def.; also on site and off-site)		
(7)	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.	4
(8)	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).	4
(9)	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).	4

GROUP 9 – NONCOMPLIANCE NOTIFICATIONS		
Sequence Number	Noncompliance Notifications	Significance Category
(1)	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). DOE NOTE: <i>This criterion is not applicable to DOE Office of Enforcement actions.</i>	4
(2)	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. DOE NOTE: <i>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.</i>	4

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 53 of 76
---	--

GROUP 10 – MANAGEMENT CONCERNS/ISSUES		
Sequence Number	Management Concerns/Issues (and “Near Misses”)	Significance Category
(1)	<p>Any event resulting in the initiation of a Federal Accident Investigation Board, as categorized by DOE O 225.1B, <i>Accident Investigation</i>.</p> <p>DOE NOTE: <i>This reporting criterion may raise the significance category of an occurrence already reported under separate criteria. Multiple reporting criteria should be assigned, when appropriate.</i></p>	2
(2)	<p>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.</p> <p style="padding-left: 40px;">The significance category assigned to the management concern should be based on an evaluation of the potential risks and impact on safe operations.</p> <p>†DOE NOTE: <i>Follow the Prompt Notification requirements identified in the Occurrence Reporting Model; SC 1 requires prompt notification.</i></p>	1-4†
(3)	<p>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.</p> <p style="padding-left: 40px;">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.</p> <p>†DOE NOTE: <i>Follow the Prompt Notification requirements identified in the Occurrence Reporting Model; SC 1 requires prompt notification.</i></p>	1-3†
(4)	<p>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.</p> <p>CWI NOTE: <i>For NRC-licensed facilities, this reporting criterion will be reported through the reporting criteria and processes found in MCP-2924, Appendix A Group 10 – Management Concerns/Issues.</i></p>	*4
(5)	<p>Any occurrence of such significant immediate interest to off-Site personnel and organizations that it warrants prompt notification to the DOE Headquarters Operations Center (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).</p> <p>CWI NOTE: <i>For NRC-licensed facilities the reporting criteria and process found in MCP-2924 provides actions to take for reportability regarding, Appendix A Group 10 – Management Concerns/Issue.</i></p>	*4

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 54 of 76
---	--

Appendix B Occurrence Reporting Model

Significance Category	Timelines*	Prompt Notification	Final Report Approval	Causal Analysis	Lessons Learned
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 hours Update Report: as needed, see Step 4.12 Final Report: 45 calendar days	To FR and DOE Headquarters Operations Center	By FR and Program Manager (PM)	Formal (<i>see def.</i>) Refer to STD-1113	Refer to MCP-192, Processing Lessons Learned and Operating Experience Information.
Significance Category 1	Categorize: 2 hours Prompt Notification: 2 hours Written Notification: COB next business day not to exceed 90 hours Update Report: as needed, see Step 4.12 Final Report: 45 calendar days	To FR and DOE Headquarters Operations Center	By FR and PM	Formal (<i>see def.</i>) Refer to STD-1113	Refer to MCP-192.
Significance Category R	Categorize: Time of SC R determination Written Notification: COB 2 business days Update Report: as needed, see Step 4.12 Final Report: 45 calendar days	To FR	By FR	Formal (<i>see def.</i>) Refer to STD-1113	Refer to MCP-192.
Significance Category 2†	Categorize: 2 hours Prompt Notification: 2 hours Written Notification: COB next business day Update Report: as needed, see Step 4.12 Final Report: 45 calendar days	To FR (When required, DOE Headquarters Operations Center)†	By FR	**Documented Apparent (<i>see def.</i>) Refer to STD-1113 and MCP-2547	Refer to MCP-192.
Significance Category 3†	Categorize: 2 hours Prompt Notification: 2 hours Written Notification: COB 2 business days Update Report: as needed, see Step 4.12 Final Report: 45 calendar days	To FR (When required, DOE Headquarters Operations Center)†	By Contractor Facility Manager (FM) and FR	**Apparent (<i>see def.</i>) Refer to STD-1113 and MCP-2547	Refer to MCP-192.
Significance Category 4†	Categorize: 2 hours Prompt Notification: 2 hours (as required) Update Report: as needed, see Step 4.12 Short Form Report: COB 2 business days	To FR (When required, DOE Headquarters Operations Center)†	By FM	Apparent (<i>see def.</i>) Refer to STD-1113 and MCP-2547	Refer to MCP-192.

+ 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.

—Final report is from Categorization Date and Time.

† Specific Significance Category 2, 3, and 4 occurrences, identified with an asterisk, also require Prompt Notification to the DOE HQ EOC. Refer to Appendix A, Reporting Criteria, for asterisk-identified reports with specific DOE HQ prompt notification reporting criteria.

** At a minimum.

EVENT INVESTIGATION AND OCCURRENCE REPORTING

Identifier: MCP-190
 Revision*: 22
 Page: 55 of 76

Appendix C

[This Attachment provides information and requirements applicable to DOE O 232.2 and contracts that include the associated CRD (Attachment 1 to DOE O 232.2).]

Causal Analysis Tree Rev. 1



EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 56 of 76
---	--

Appendix D Instructions for Completing an Occurrence Report

General

The following instructions apply to occurrence reporting in the ORPS electronic database. This information is in DOE O 232.2. In some instances, additional text / instructions / clarification reflect CWI's views.

ICP's ORPS webpage, <http://icportal/eshq/ESHQHomepage/PerformanceAssurance/ORPS/tabid/779/Default.aspx> has guidance/tools for completing reports, including sample reports.

The numbers on the specific report fields correspond with the numbers in the Occurrence Report date entry format.

Fields with a preceding asterisk (*) must be completed for all notification, update, final, and short form reports.

Fields marked with a pound sign (#) are required under certain conditions, depending on occurrence type, report type, or the answer to a previous question.

For the Notification Report, Fields 1 through 13, 16 through 25, 28 through 30 and Field 34 are required; some are computer generated.

Significance Category 4 Reports – require the notification report fields plus Field 35, and User Field number 2 with ICARE number. Data may be entered in the other fields if needed.

For an Update Report and a Final Report, retain and update information from the Notification Report as better information becomes available. The DOE Facility Representative and Program Manager may provide comments in Fields 40 and 41, respectively, for all reports, except reports that have already been finalized (which include Short Form Reports).

Security Requirements—

- a. Occurrence Reports containing any classified information, Unclassified Controlled Nuclear Information (UCNI), or other controlled information must not be entered into the ORPS database.

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 57 of 76

- b. All reports determined to be classified or controlled by current classification or control guidance must be submitted in hard copy in accordance with established security requirements and using the appropriate secure transmission means. In addition, an unclassified version of the Occurrence Report that has been sanitized of all controlled information must be submitted to ORPS within the time frames specified in this Order. Specific instructions on the reporting of occurrences via hard copy or the electronic database, the Occurrence Reporting and Processing System (ORPS), are available on the Occurrence Reporting and Processing System homepage.
- c. 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.

The 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.

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.

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

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.

For those events where an extent-of-condition (EOC) review was conducted, the final ORPS report must document in the “Description of Cause” field an EOC review was performed; describe the results. Ensure the EOC is also recorded as a corrective action in the “Corrective Actions” field.

NOTE: *EOC reviews are required for all Significance Category 1, 2, OE and R occurrences (ICARE Significant Deficiency Reports), and if deemed necessary by the Facility Manager, for Significance Category 3 reports (ICARE Adverse Deficiency Reports). Refer to MCP-598 and MCP-2547.*

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.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 58 of 76
---	---

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.

Occurrence Report Items (Field numbers provided in this section correspond to the field numbers displayed in the data entry program, not the printed report. The field names correspond to both data entry and the printed report.)

Categorizing

- a. Each criterion is denoted by its Group, Subgroup (if applicable), and sequence number (#). Thus, for example, the violation of a safety limit is denoted as Group 3, Subgroup A, Sequence (1) or — “3A(1).” An event can meet multiple reporting criteria that establish it as an occurrence.
- b. The reporting criteria presented below list a specific Significance Category (SC) for each criterion, between the sequence number (#) and the criterion text. Significance Categories are designated as — “OE” for Operational Emergencies, — “R” for recurring occurrences, or 1, 2, 3, or 4. (Refer to Occurrence Description, no. *22, Significance Category (SC), in this Appendix.)
- c. Operational Emergencies, Significance Category 1, and some other occurrences in lesser significance categories require prompt notification to the DOE HQ OC. Asterisks (*) next to the significance categories below denote those occurrences requiring prompt notification to the DOE HQ OC. Attachment 4 contains the prompt notification requirements.
- d. DOE O 151.1C describes initiating events that are considered Operational Emergencies. DOE O 225.1B defines when Federal Accident Investigation Boards must be convened. While some Operational Emergencies and some other ORPS occurrences involve conditions that would be sufficient to initiate accident investigations, criterion 10(1) herein will report the actual initiation of a Federal Accident Investigation Board.
- e. All of the specific reporting criteria applicable for an occurrence must be identified. Some criteria are secondary in that they complement other reporting criteria that require occurrence reporting. In these cases, all of the applicable criteria must be recorded and the event categorized as the higher SC reporting criterion being considered.

A. 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

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 59 of 76
---	--

- 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, and may not be modified.

- *2. Facility Name. Select the facility name from the drop-down menu. Note, only facilities that you have authority with will show up in this 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.

Facility Functions are listed below:

- 01 Plutonium Processing and Handling
- 02 SNM Storage
- 03 Explosive
- 04 Uranium Enrichment
- 05 Uranium Conversion/Processing and Handling
- 06 Irradiated Fissile Material Storage
- 07 Reprocessing
- 08 Nuclear Waste Operations/Disposal
- 09 Tritium Activities
- 10 Fusion Activities
- 11 Environmental Restoration Operations
- 12 Category "A" Reactors
- 13 Category "B" Reactors
- 14 Solar Activities
- 15 Fossil and Petroleum Reserves
- 16 Accelerators
- 17 Laboratory (For search only)
- 17A Laboratory – Analytical
- 17B Laboratory – Research & Development
- 18 Power Marketing Administration
- 99 Balance-of-Plant (For search only)
- 99A Balance-of-Plant – Offices
- 99B Balance-of-Plant – Machine Shops
- 99C Balance-of-Plant – Site/Outside/Utilities

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 60 of 76
---	--

- 99D Balance-of-Plant – Safeguards/Security
- 99E Balance-of-Plant – Storage (except SNM)
- 99F Balance-of-Plant – Laundries
- 99G Balance-of-Plant – Infrastructure (Other Functions not specifically listed in the Category).

- *4. Site Name. This field is automatically generated by the system, and indicates the logged users' site. This field may not be modified.
- *5. Facility Manager/Facility Manager Designee. Enter name, title, and phone number for the responsible Facility Manager/Facility Manager Designee who approved the report, either by personally transmitting the electronic report or by signing the hard copy report. By selecting a Facility Manager/Facility Manager Designee name from the drop-down menu, the title and phone number fields will automatically fill in, but may be overridden if necessary. Only Facility Managers/Facility Manager Designees who are registered ORPS users will appear in the drop-down menu. If the appropriate Facility Manager's/Facility Manager Designee's name does not appear in the list, you may alternatively enter a name in the input box next to the drop-down menu. You will also have to fill in the phone number and title. A selection made from the drop-down menu will override any information entered in the input box.
- *6. Facility Manager/Facility Manager Designee Phone. Enter telephone number, including area code. Telephone number format is AAAPPPNNNN, where AAA is the area code, PPP is the prefix, and NNNN is the number. Any amount of punctuation may be included in any way desired, as long as ten numeric digits are included and the field does not exceed 15 characters in total length. Phone numbers are displayed as (AAA) PPP-NNNN. Example: (208)555-1212 --> 208/555/1212.
- *7. Job Title. Enter Facility Manager/Facility Manager Designee specific job title.
- *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.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 61 of 76
---	--

- *12. Secretarial Office. Select the DOE Secretarial/Power Administration Office to which facility is organizationally responsible from the drop-down menu.

BV Bonneville Power Administration
EE Energy Efficiency and Renewable Energy
EH Environment, Safety, and Health
EI Energy Information Administration
EM Environmental Management
FE Fossil Energy
ME Management, Budget, and Evaluation
NA National Nuclear Security Administration
NE Nuclear Energy, Science, and Technology
NP New Production Reactor (no new reports)
RW Civilian Radioactive Waste Management
SC Science
SE Southeastern Power Administration
SO Security
SW Southwestern Power Administration
UE Uranium Enrichment (no new reports)
WA Western Area Power Administration.

Only one secretarial office/power administration may be selected. If the facility is operationally responsible to more than one secretarial office, enter the secretarial office that is most directly involved in the specific work activity during which the occurrence took place. 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 other controlled information MUST NOT be transmitted to ORPS. For reports containing classified, UCNI, or other controlled information, a sanitized version of the report shall be submitted to ORPS. For facilities where classified, or UCNI or other controlled information is available, this field is required for all reports.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 62 of 76
---	--

- *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.
- *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).
- *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.
- *18. Discovered Date/Time. Enter the date and time when facility staff discovered the event or condition. Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996. The time format is military time: hhmm. Examples: 6:30 AM --> 0630; 6:30 PM --> 1830. These fields are required for all reports.
- *19. Categorized Date/Time. Enter the date and time when the Facility Manager/Facility Manager Designee determined the event or condition constituted a reportable occurrence and determined its category (Significance Category OE, 1-4, or R). Date format is MM/DD/YYYY. Example: June 3, 1996 --> 06/03/1996. The time format is military time: hhmm. Examples: 6:30 AM --> 0630; 6:30 PM --> 1830. These fields are required for all reports.

B. 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. If the occurrence involved an unreviewed safety question, the acronym “USQ” should be placed at the end of the subject or title of the occurrence. This field is required for all reports.
- *21. Reporting Criteria. Select one or more reporting criterion/criteria as discussed in DOE O 232.2, Attachment 2, Occurrence Reporting Criteria. All specific reporting criteria applicable for an occurrence must be identified.
- *22. Significance Category (SC). Significance categories provide a means to reflect perceived risk associated with a given occurrence. Risk determinations take into consideration the potential consequence of an occurrence in terms of health, safety and security to personnel, the public, the environment, and the operational mission. Operational Emergency (OE) or Significance Category 1 (SC1) occurrences reflect management’s judgment that circumstances pose an

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 63 of 76
---	--

immediate or near term potential for harm unless promptly mitigated or that the occurrence meets reporting thresholds established by other regulatory requirements. Occurrences below OE or SC1 require assessment and mitigation to prevent or mitigate adverse consequences, but are not as time sensitive as OEs or SC1s. Occurrences at the lower levels, SC3 and SC4, reflect situations that require analysis and learning in order to generate measured actions to prevent potential future consequences. Significance categories are defined as follows:

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, the significance category would be 1.*

Significance Category OE: Operational Emergency as defined in DOE O 151.1C is a major unplanned or abnormal event or condition that: involves or affects 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.

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.

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.

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.

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

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 64 of 76
---	--

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

- #23. Recurring Event. If the event is a “recurring” (*Significance Category R*) event, check this box, otherwise leave blank. If this box is checked, the significance category will automatically be set to R, regardless of what significance category is derived from the selected reportable criteria.
- *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 will help the preparer write a clear description of the occurrence:
- a. The first paragraph 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. Avoid redundant and unnecessary text, and lengthy “log book” accounts, unless a discussion of the event in chronological order is considered essential to understanding the event.
 - c. Complex and more significant occurrence reports (OE, R, 1 and 2) warrant a greater level of detail; reflecting the formal or documented apparent cause analysis. All reports should present sufficient information so the general reader understands the event, why the contractor is reporting the event and what the event’s effect(s) is/are.
 - d. Avoid jargon and uncommon or site/facility-specific abbreviations and acronyms. If used, acronyms should be initially spelled out.
 - 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.
 - f. Qualify 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. Avoid using “potential” in a final report when describing an event. To write, “potential exposure,” “potentially blocking” or “potentially injured,” leaves the reader to guess on ambiguous information: did it or did it not happen?

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 65 of 76
---	--

In a notification report, “potential” can be just that, for the time being. But after completing a fact finding, an investigation, and a cause analysis, quantitative and qualitative information remove any ambiguity (quantifying if an uptake, exposure, injury, illness, or fire, for example, did occur) by time the report is readied for final. An exception to this is Reporting Criteria 10(2), Management Concern and 10(3), Near Miss.

- h. Use **active rather than passive voice** when 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
- Operation actions that affected the course of events
- The loss of any safety equipment.

When appropriate for clarification, photos, sketches, or 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.

C. 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. Examples: 6:30 AM → 0630; 6:30 PM → 1830.

This field is required for all reports categorized as Operational Emergencies or Significance Category 1. The field is also required for Significance Category 2 occurrences, as directed by the Field Office. In addition, the field is required for

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 66 of 76
---	--

specific Significance Category 2, 3 and 4 occurrences identified with an asterisk next to the reporting criteria.

- #27. Other Notifications. Enter notification date(s) and time(s) when the applicable DOE-ID Facility Representative (FR), or for state and local officials, or other agencies and the name(s) and organization(s) of the person(s) notified. Date format is MM/DD/YYYY. Example: June 3, 1996 → 06/03/1996. The time format is military time: hhmm. Examples: 6:30 AM → 0630; 6:30 PM → 1830.

D. 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 as 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
 - 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.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 67 of 76
---	--

E. Cause Information

- #31. Causes. Select **all codes** from the Causal Analysis Tree that **best** represent the occurrence's causes. 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 all final reports and is optional for short-form reports. **Full Cause Code descriptions** and examples are recorded in DOE-STD-1197-2011, "Occurrence Reporting Causal Analysis."
- #32. Description of Cause. Discuss the occurrence's causes to include all cause codes and corrective actions identified, including causal analysis contributing to a recurring event. Report the cause analysis method (STD-1113). Do not repeat the description of the occurrence, but discuss the results of the causal analysis. Identify which corrective action(s) mitigate the cause(s). A detailed description of the corrective actions is required to demonstrate the identified actions will adequately address the event's cause(s) (this is done by referencing the specified corrective action in field #39). Document if an extent of condition (EOC) review was performed and provide results. This field is required for all final reports, except short-form reports.

F. Evaluations

- #33. Evaluation by Facility Manager. With the information available, the Facility Manager/Facility Manager Designee should provide his or her evaluation of the occurrence and its effects or possible effects on the plant, system, program, or company. The facility manager may later supplement this evaluation with additional entries in update reports or in the update/final report. If a Reporting Criteria or Significance Category is removed or added, if changes to corrective actions occur to a final (submitted report) or if the required 45-day completion date can't be achieved, then populate this field with needed discussion on changes or time delays. 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 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" must be "No." This field is required for all reports.

If further evaluation is required, specify if this occurrence will require further evaluation before further operation. This field is required for all reports where "Further Evaluation Required" is "Yes."

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 68 of 76
---	--

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.”

G. Deficiencies, Lesson Learned, and Corrective Actions

#35. Integrated Safety Management (ISM) Codes. Enter one or more ISM codes from the following list. 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 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 noncompliance (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, including short-form reports.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 69 of 76
---	--

- #36. Lessons Learned. Describe what lessons can be learned from this occurrence, in order to help similar events from happening. This field is required for all final reports, and optional for short-form reports (Sig. Cat. 4). Completing the Lessons Learned field in the ORPS report does not fulfill MCP-192 requirements to submit a formal lessons learned, when required. See Section 6, Definitions, Lessons Learned.
- #37. Similar Occurrence Reports. Indicate by ORPS report number any similar occurrence(s) which the FM or ORPS preparer are aware of for their facility or program, or other facilities; include similar occurrences contributing to a recurring event. A discussion describing the analysis of similar occurrence reports should be included in Field #33. Also, identify any known commercial reactor licensee event reports (LER) or other related documents that describe similar occurrences. The purpose 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 all final reports and optional for short-form reports.
- #38. User-Defined Fields (two available). In User-defined Field #1, enter the responsible Facility Manager's/Facility Manager Designee's organization number such as "Org. 7500" for all final reports.

If the report is a Significance Category 4 report and no corrective actions were recorded in Field #39, "Corrective Actions," then in User-Defined Field #2, enter the ICARE number, such as ICARE 103956.

- #39. Corrective Actions (CA). Enter the complete CA description, its target date for completion, the ICARE number and corresponding Action Item (AI) number, if available (such as DR 103956, AI 5295). Record which cause code(s) the CA addresses (from #32, "Description of Cause").

Write the CA in active/future tense beginning each action with a verb. Keep the action statement short, if possible. CAs should present sufficient information so the general reader understands the action. Write the CA with one action per line – don't group multiple tasks together.

If the CA was completed before the occurrence report becomes final, still write the CA in active/future tense and record the CA's completion date; this alleviates writing the corrective action in past tense, giving the impression the CA was an "immediate action taken."

**EVENT INVESTIGATION AND OCCURRENCE
REPORTING**Identifier: MCP-190
Revision*: 22
Page: 70 of 76**H. DOE 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 is automatically entered by ORPS. If a Facility Representative rejects a final report, the FR may use this space to give reasons. 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 required only on final reports rejected by the program manager.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 71 of 76
---	--

**Appendix E
MCP-190 Basis**

Step	Basis	Source	Citation
1, 2, and 3	For reportable occurrences, contractors must categorize the occurrences, notify DOE as required, and prepare and submit Occurrence Reports. At sites with more than one facility management contractor, contractors may make arrangements for one of the contractors to prepare and submit reports for the entire site. However, each contractor must ensure that Occurrence Reports are submitted properly for activities within its scope of work.	DOE Order 232.2, Occurrence Reporting and Processing of Operations Information.	Contractor Requirements Document (CRD) paragraph a.
1, 2, and 3	Implements the Worker Safety and Health Program.	10 CFR 851	As applicable.
1, 2, and 3	Implement applicable and specific chapters of DOE directives on: <ol style="list-style-type: none"> 1. Occurrence Reporting, 2. Conduct of Operations, 3. Emergency Management, and 4. Environment, Safety and Health Reporting. 	<ol style="list-style-type: none"> 1. DOE O 232.2, CRD, 2. DOE O 151.1C, Comprehensive Emergency Management System, 3. DOE O 231.1B, Environment, Safety and Health Reporting. 	<ol style="list-style-type: none"> 1. 3a through 3f. 2. 3a and 3b, 3. 4a in its entirety. 4. 4b in its entirety.
1, 2, and 3	Maintain sufficient technical capability and knowledge of site and contractor activities to make informed decisions about hazards, risks, and resource allocation; provide direction to contractors; and evaluate contractor performance.	DOE Order 226.1B, Implementation of Department of Energy Oversight Policy.	4a (2)
1, 2 and 3	<ol style="list-style-type: none"> a. Except for the equivalencies/exemptions in paragraph 3.c, the Contractor Requirements Document (CRD), Attachment 1, sets forth requirements of this Order that will apply to contracts that include the CRD. b. The CRD or its requirements must be inserted in site/facility management contracts. 	DOE O 232.2	3b.
Entire Document	Notifications, Investigation and Information Processing Occurrences resulting from activities performed by facility personnel and by subcontractors in support of facility operation must be reported by facility personnel in accordance with the provisions of this Order. For reportable occurrences, facility personnel must categorize the occurrences, notify other DOE elements as required, and prepare and submit	DOE O 232.2	4a(1) through (4); and CRD 3a through 3f.

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 72 of 76
---	--

Step	Basis	Source	Citation
	<p>Occurrence Reports.</p> <p>Local implementing procedures may specify additional learning and reporting requirements beyond those stated in this Order, but must at a minimum include all of the requirements in this Order.</p> <p>Event or Condition Identification and Response.</p> <p>Identify abnormal or emergency conditions based on local processes and procedures that implement requirements of DOE O 422.1, Conduct of Operations, and DOE O 151.1C, Comprehensive Emergency Management System. Ensure that the requirements of this CRD for reporting are initiated for events specified in the Occurrence Reporting Criteria (Attachment 2). Ensure that reporting does not interfere with operations personnel taking appropriate actions to stabilize and/or place the facility/operation in a safe condition upon discovery of an abnormal event or condition.</p> <p>b. Event or Condition Categorization.</p> <p>Events and conditions must be categorized in accordance with the Occurrence Reporting Criteria (Attachment 2) and within the timeframes specified in the Occurrence Reporting Model (Attachment 4), or as soon thereafter as reasonably possible.</p> <p>c. Prompt Notifications.</p> <p>Prompt Notifications, as determined by the Occurrence Reporting Criteria (Attachment 2), must be accomplished in accordance with the Occurrence Reporting Model (Attachment 4).</p> <p>d. Occurrence Report Processing.</p> <p>Occurrence reports must be processed in accordance with the expectations outlined in the Occurrence Report Preparation (Attachment 3) and Occurrence Reporting Model (Attachment 4).</p> <p>e. Occurrence Investigation and Analysis.</p> <p>Occurrences must be investigated and analyzed, as described in the Occurrence Reporting Model (Attachments 4), and causes provided using the causes listed in the Causal Analysis Tree (Attachment 5).</p>		
3, 4.1 and 4.2	<p>Facility Managers (as defined in this Order; see definition in Attachment 6). In addition to other requirements prescribed in this Order, Facility Managers, both contractors and government-owned, government-operated personnel, are responsible for the following:</p>	DOE O 232.2	CRD, 5g (1) through (5).

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 73 of 76
---	--

Step	Basis	Source	Citation
	(1) Ensure procedures are implemented for notification and reporting that meet the requirements of this Order. (2) Determine causes and generic implications, and implement corrective actions and closeout activities for reportable occurrences. (3) Review and assess reportable occurrence information for their facilities to assess generic implications and corrective action implementation, closeout, and effectiveness, as required; to identify and report recurring events, and to ensure that facility personnel involved in these operations perform the related functions. (4) Ensure that Occurrence Reports and operations information from other organizations are disseminated to appropriate facility personnel within their cognizance, are reviewed for generic implications, and are used to improve operations. (5) Prepare and transmit Occurrence Reports in accordance with Order requirements.		
1, 2, 3, 4.1 and 4.2	2. Reporting Occupational Safety and Health Information. a. Injury and Illness Recordkeeping and Reporting. (1) Contractors must ensure that work-related fatalities, injuries, and illnesses that occur to their employees and subcontractor employees are recorded and reported accurately and in accordance with 29 C.F.R. §§ 1904.4 through 1904.11, 1904.29 through 1904.32 and 1904.46 and Attachment 3, paragraph 1. This requirement excludes transient and small employer subcontractors. A transient subcontractor does not maintain an onsite office, does not receive direction/oversight from DOE or a DOE contractor, and their work is limited to transient activities, e.g., copy machine repair, express mail delivery, bottle water delivery, vending machine repair service. A small employer subcontractor employs less than 10 employees at a DOE site either directly or through sub-tiered contracts.	DOE O 231.1B, Environment, Safety And Health Reporting	CRD 2a. (1)
1, 2, 3, 4.1 and 4.2	Issues Management Program – ensures that problems (issues) adverse to the environment, safety, health, operations, or quality are documented and resolved in an effective and timely manner. Applicability -- An effective feedback and improvement program requires the active participation of personnel at each level of work and at every stage in the work process. For any activity,	PDD-155, Feedback and Improvement	1, 2, 3.2.3and 4.3.2, 4.3.4 and 4.4.3

<p>EVENT INVESTIGATION AND OCCURRENCE REPORTING</p>	<p>Identifier: MCP-190 Revision*: 22 Page: 74 of 76</p>
--	---

Step	Basis	Source	Citation
	<p>whether in an office or in the field, ICP personnel, including subcontractor organizations, are required to continuously evaluate their processes and procedures with the objective of performing the activity safer and more efficiently, while reducing impacts or threats to the environment.</p> <p>The occurrence reporting process is described in MCP-190, “Event Investigation and Occurrence Reporting,” and implements the requirements of DOE Order 232.2, “Occurrence Reporting and Processing of Operations Information.” Occurrence reports inform the DOE and company management, on a timely basis, of occurrences that could adversely affect national security, the health and safety of the public or workers, the environment, the intended purpose of DOE facilities, or the credibility of the DOE and the company.</p> <p>MCP-190, “Event Investigation and Occurrence Reporting,” is the implementing procedure for investigating, reporting and resolving occurrences, as described in DOE Order 232.2.</p> <p>If the issue is categorized as a deficiency, a review for applicability to special programs, such as the DOE/RW-0333P Spent Nuclear Fuels and High Level Waste Programs or Nuclear Regulatory Commission (NRC) regulated facilities, is conducted. Deficiencies and nonconforming items are reviewed against additional reportability criteria and if reportable, are processed in accordance with the applicable procedure:</p> <ul style="list-style-type: none"> • MCP-49, “Occupational Injury/Illness Reporting and Follow-up” • MCP-190, “Event Investigation and Occurrence Reporting” • MCP-2547, “Identification, Reporting and Resolution of Price Anderson Noncompliances.” <p>Cognizant Directors/Functional Support Managers – are responsible for:</p> <ul style="list-style-type: none"> • Collecting, analyzing, and reporting performance information • Performing analyses of performance in their specific areas • Reviewing performance reports and initiating actions for performance issues • Performing and supporting ISMS annual evaluations • Issues management of ICARE issues, through 		

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 75 of 76
---	--

Step	Basis	Source	Citation
	<p>MCP-598, “Corrective Action System”</p> <ul style="list-style-type: none"> • Developing and implementing actions to address results of ISMS annual evaluations. <p>Performance Report Owners – Organizations who are assigned as owners of ESH&Q performance reports are responsible for:</p> <ul style="list-style-type: none"> • Assembling, publishing, and briefing assigned performance reports • Developing databases and automated reporting systems for performance reports • Maintaining historical performance data and reports. <p>Vice-President and Directors – are responsible for reviewing performance reports, performance analyses, and ISMS annual evaluations, and ensuring that appropriate actions are being taken to address results for which their organizations have responsibility.</p>		
1, 2, 3, 4.1 and 4.2	<p>Injury and Other Event Investigation and Reporting</p> <p>The occurrence reporting process is described in Management Control Procedure (MCP)-190, “Event Investigation and Occurrence Reporting,” and implements the requirements of DOE Order 232.2, “Occurrence Reporting and Processing of Operations Information.” Occurrence reports inform the DOE and company management, on a timely basis, of occurrences that could adversely affect national security, the health and safety of the public or workers, the environment, the intended purpose of DOE facilities, or the credibility of the DOE and the company. Injury and illness investigation and reporting is implemented through MCP-49, “Occupational Injury/Illness Reporting and Follow-up.” The procedure prescribes the process for complying with DOE and OSHA requirements for recording of occupational injuries and illnesses. It includes the processes to be followed for notifying, investigating, reporting, and resolving occupational injuries/illnesses.</p>	PDD-159, ICP Contractor Assurance System	6.3
1, 2, 3, 4.1 and 4.2	<p>Issues Management Program</p> <p>PDD-155, “Feedback and Improvement Program,” describes the Issues Management Program, which ensures that issues that have a reasonable potential to cause adverse operational, environmental, safety and health, or QA consequences are documented and resolved in an effective and timely manner. Items, services, and processes that do not meet established requirements are controlled and corrected using a</p>	PDD-1004, Integrated Safety Management Program	7.9.4

EVENT INVESTIGATION AND OCCURRENCE REPORTING	Identifier: MCP-190 Revision*: 22 Page: 76 of 76
---	--

Step	Basis	Source	Citation
	<p>graded-approach based upon the significance of the issue and the importance of the work affected.</p> <p>This program meets the requirements of DOE O 226.1A. It is designed to be an integrated company process that enables management to understand and prioritize, based on risk significance, the correction of issues. These issues may be facility-specific, Site-wide, or programmatic in nature, and may be identified by external agencies, independent assessments, management assessments, inspections, surveillances, and employees during the conduct of work assignments. Issues may be identified during any of phases of a project, subproject, or facility life cycle. The program also provides for ensuring that adequate corrective actions are implemented to prevent recurrence of undesirable events or conditions through appropriate causal analysis, corrective action, verification and follow-up. The cornerstone of the issues management program is the ICARE system, described in MCP-598, where tracking and status of issues are supported through the use of the system.</p> <ul style="list-style-type: none"> • MCP-190, “Event Investigation and Occurrence Reporting,” provides a system for identifying, categorizing, notifying, investigating, and disseminating written reports regarding abnormal events to the appropriate management levels and to DOE. It also provides a consistent process of investigating those events, determining causal factors, identifying appropriate actions, analyzing to identify adverse trends, and communicating this information to the appropriate management levels. 		
1, 2, 3, 4.1 and 4.2	The contractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the System. If the contractor fails to provide resolution or if, at any time, the contractor's acts or failure to act causes substantial harm or an imminent danger to the environment or health and safety of employees or the public, the contracting officer may issue an order stopping work in whole or in part.	PRD-331, Integrated Safety Management System	Table