

U.S. Department of Energy
Office of River Protection
Mr. Michael K. Barrett
Contracting Officer
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 023763

Dear Mr. Barrett:

**CONTRACT NO. DE-AC27-01RV14136 – TRANSMITTAL FOR APPROVAL –
AUTHORIZATION BASIS CHANGE NOTICE ABCN-24590-01-00007, REVISION 0,
SELECTION OF IMPLEMENTING STANDARD FOR REPORTING AND INCIDENT
INVESTIGATIONS**

Bechtel National, Inc. (BNI) is submitting Authorization Basis Change Notice (ABCN), ABCN-24590-01-00007, Revision 0, to the U.S. Department of Energy (DOE), Office of River Protection (ORP), and the Office of Safety Regulation (OSR) for approval (Attachment 1). This ABCN does not reflect a reduction in commitment or a reduction in effectiveness, relative to the currently approved Authorization Basis.

The implementing standard for the River Protection Project-Waste Treatment Plant (WTP) reporting and incident investigation is currently contained in the Integrated Safety Management Program. This ABCN requests approval to use DOE Manual 232.1-1A as the implementing standard for WTP project reporting and incident investigation. This DOE Manual, derived from DOE Order 232.1-1A, is a well-proven and established standard used at the Hanford Site and throughout the DOE complex for reporting and incident investigation. By adopting this contract required standard, the WTP will avoid potential problems with reporting and incident investigation that may impact construction.

An electronic copy of ABCN-24590-01-00007, Revision 0, is provided for the OSR's information and use.

Please contact Mr. Bill Spezialetti at (509) 371-4654 for any questions or comments.

Very truly yours,

A. R. Veirup
Prime Contract Manager



Authorization Basis Change Notice

ABCN Number ABCN-24590-01-00007 Revision 0
 ABCN Title Selection of Implementing Standard for Reporting and Incident Investigation

I. ABCN Review and Approval Signatures

A. ABCN Preparation

Preparer: KD Gibson _____
Print/Type Name Signature Date

Reviewer: RL Dickey _____
Print/Type Name Signature Date

B. Required Reviewers

Review Required? *For each person checked Yes, that signature block must be completed.*

- ES&H Manager _____
Print/Type Name Signature Date
- QA Manager _____
Print/Type Name Signature Date
- PSC Chair _____
Print/Type Name Signature Date
- Operations Manager _____
Print/Type Name Signature Date
- Engineering Manager _____
Print/Type Name Signature Date
- Pretreatment APM _____
Print/Type Name Signature Date
- LAW APM _____
Print/Type Name Signature Date
- HLW APM _____
Print/Type Name Signature Date
- BOF APM _____
Print/Type Name Signature Date
- Construction Manager _____
Print/Type Name Signature Date
- Business/Project Controls Manager _____
Print/Type Name Signature Date
- ALARA PSC Subcommittee Chair _____
Print/Type Name Signature Date

C. ABCN Approval

WTP Project Manager _____
Print/Type Name Signature Date



Authorization Basis Change Notice

ABCN Number ABCN-24590-01-00007 Revision 0
ABCN Title Selection of Implementing Standard for Reporting and Incident Investigation

II. Description of the Proposed Change to the Authorization Basis

D. Affected AB Documents:

Title	Document Number	Revision
Safety Requirements Document, Vol . II	24590-WTP-SRD-ESH-01-001-02	0

Decision to Deviate Yes No

If yes, DTD Number _____ Deficiency Report Number _____

Initiating Document Number Contract No. DE-AC27-01RV14136 Revision _____

E. Describe the proposed changes to the Authorization Basis Documents:

- In SRD Safety Criteria 7.7-1 through 7.7-9: Replace the implementing standard (of ISMP Sections 1.3.17, *Incident Investigations*, 3.16.3, *Incident Investigations*, 5.2, *Control of Subcontractors*, 5.6.7, *Investigations of Incidents*, and 8.0, *Document Control and Maintenance*) for Reporting and Incident Investigation with DOE Manual 232.1-1A, as tailored in SRD Volume II, Appendix C. The changes to the SRD, Volume II are on pages 7-20 through 7-24, all revision 0.
- Add new section RPP-WTP Specific Tailoring of DOE M 232.1-1A to SRD Volume II, Appendix C, Implementing Standards.

F. List associated ABCNs and AB documents:

ISMP (24590-WTP-ESH-01-001). Even though ISAR section 3.7, *Incident Investigation* is identified in ISMP section 3.7, the reference as stated is to provide guidance in developing implementing procedures for the RPP-WTP Project.

G. Explain why the change is needed:

Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. DOE Manual 232.1-1A, as tailored in SRD Volume II, Appendix C provides guidance to ensure appropriate categorization of reportable incidents is performed and documentation requirements are met. The DOE Manual, derived from DOE Order 232.1-1A, is a well-proven and established standard used at the Hanford Site and throughout the DOE complex for reporting and incident investigation. By adopting this accepted method described in this manual, the project will avoid potential problems with reporting and incident investigation that may impact construction. The RPP-WTP Project will be able to use the existing expertise and experience to support the construction schedule. In addition, other regulators and stakeholders that may review the document will be more familiar with the approved DOE standard than they will be with the currently identified implementing standard (ISMP). These attributes will also be beneficial for future operations at the facility

H. List the implementation activities and the projected completion dates:

<u>Activity</u>	<u>Date</u>
Inform DOE that AB has been revised	30 days after DOE approval
Distribute revised pages	30 days after DOE approval
Provide updated electronic version of AB to DOE	30 days after DOE approval



Authorization Basis Change Notice

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H. List the implementation activities and the projected completion dates:

<u>Activity</u>	<u>Date</u>
Revise the following implementing documents:	
<u>Documents</u>	<u>Describe extent of revisions</u>
1 _____	_____
2 _____	_____
<u>Describe other activities:</u>	<u>Date</u>
1 _____	_____
2 _____	_____

III. Evaluation of the Proposed Change

I. Is DOE prior approval required?

- 1 Does the revision involve the deletion or modification of a standard previously identified or established in the SRD? **Yes** **No**

Explain

This change will replace the implementing standard selected for reporting and incident investigation as referenced in the SRD.

- 2 Does the revision result in the reduction in commitment currently described in the AB? **Yes** **No**

Explain

The newly selected standard, DOE Manual 232.1-1A, as tailored in SRD Volume II, Appendix C, complies with top-level principles, applicable laws and regulations, and the contract, and provides adequate safety. No changes are proposed for the ISMP, which identifies commitments that will be implemented with development of the RPP-WTP Project Reporting and Incident Investigation Program per DOE Manual 232.1-1A. As such, the new standard will not result in a reduction in commitment

- 3 Does the revision result in a reduction in the effectiveness of any procedure, program, plan, or management process described in the AB? **Yes** **No**

Explain

The change in the selected standard brings the project in line with the programmatic requirements contained in 10 CFR 830, but does not delete the programmatic requirements contained in the authorization basis. The requirements for programmatic process are not deleted and retain the current level of effectiveness

J. Complete the safety evaluation by describing how the revision to the AB:

- 1 will continue to comply with all applicable laws and regulations, conform to top-level safety standards, and provide adequate safety

See Attachment 2, Identification of Implementing Standards for the RPP-WTP Reporting and Incident Investigation.



Authorization Basis Change Notice

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- 2 will continue to conform to the original submittal requirements associated with the AB documents being revised

See Attachment 2, Identification of Implementing Standards for the RPP-WTP Reporting and Incident Investigation.

- 3 will not result in inconsistencies with other commitments and descriptions contained in the AB or an authorization agreement

See Attachment 2, Identification of Implementing Standards for the RPP-WTP Reporting and Incident Investigation.

K. Justification of the Proposed Change

Provide a justification that demonstrates that the proposed change is safe

The regulatory bases for the subject Safety Criteria are listed in DOE/RL-96-0006, Sections 4.3.1.8 and 5.2.10. Attachment 2 contains a discussion of these Safety Principles and a summary of the justification that the DOE Manual 232.1-1A, as tailored in SRD Volume II Appendix C does not adversely impact the environment, conforms to applicable laws, regulations, the Contract, the Top-Level Standards, and does not conflict with other parts of the authorization bases. Attachment 3 provides the basis/rationale for replacing the associated SRD safety criteria implementing codes and standards citation of ISMP sections with DOE Manual 232.1-1A.

Attachments:

1. Safety Requirements Document (SRD), 24590-WTP-SRD-ESH-01-001-02, Proposed Changes
2. Identification of Implementing Standards for the RPP-WTP Reporting and Incident Investigation
3. Evaluation of Current and Proposed Implementing Standard

7.7 Reporting and Incident Investigation

Safety Criterion: 7.7 - 1

Each incident which resulted in, or could reasonably have resulted in a major accident shall be investigated. An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 1.3.17 Incident Investigations~~

~~Section: 5.6.7 Investigations of Incidents~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Regulatory Basis

DOE/RL-96-0006 5.2.10 Incident Investigation

Safety Criterion: 7.7 - 2

An incident investigation team shall be established and consist of at least one person knowledgeable in the process involved, including a subcontract employee if the incident involved work of the subcontractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident. A report shall be prepared at the conclusion of the investigation which includes at a minimum:

- (1) Date of incident
- (2) Date investigation began
- (3) A description of the incident
- (4) The factors that contributed to the incident
- (5) Any recommendations resulting from the investigation

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 1.3.17 Incident Investigations~~

~~Section: 5.6.7 Investigations of Incidents~~

~~Chapter: 8.0 Document Control and Maintenance~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Regulatory Basis

DOE/RL-96-0006 5.2.10 Incident Investigation

**River Protection Project - Waste Treatment Plant
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7.0 Management and Operations

Safety Criterion: 7.7 - 3

A system shall be established to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented. The report shall be submitted to the regulator for evaluation and in support of regulatory oversight. The report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including subcontract employees where applicable. Incident investigation reports shall be retained for five years.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 5.6.7 Investigations of Incidents~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Regulatory Basis

DOE/RL-96-0006 5.2.10 Incident Investigation

Safety Criterion: 7.7 - 4

The Facility Manager shall categorize reportable incidents as soon as reasonably possible and in all cases within 2 hours of identification of the event or condition. If categorization is not clear, the occurrence shall be conservatively categorized at the higher level being considered. The occurrence categorization shall be elevated, maintained, or lowered, as appropriate, as further information is obtained.

Reportable occurrences shall be categorized in accordance with the following guidance:

“Emergencies” are the most serious reportable occurrences and they require an increased alert status for on-site personnel and, in specified cases, for off-site authorities. Emergencies require a time-urgent notification as part of the facility’s comprehensive emergency management program.

“Unusual Occurrences” are the category of non-emergency reportable occurrences that exceed the off-normal occurrence threshold and have significant impact or potential for impact on safety, the environment, health, safeguards and security, or operations.

“Off-Normal Occurrences” are the category of abnormal or unplanned reportable occurrences that adversely affect, potentially affect, or are indicative of degradation in the level of safety, safeguards and security, environmental or health protection, performance or operation of the facility.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 5.6.7 Investigations of Incidents~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

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7.0 Management and Operations

Safety Criterion: 7.7 - 5

The Facility Manager shall orally notify the regulator of Emergencies within 15 minutes. In addition, the Facility Manager shall orally notify the regulator of Unusual Occurrences, as soon as practical, but in all cases within 2 hours of categorization. The Facility Manager shall contact the regulator via the Headquarters Emergency Operations Center.

Follow-up Notification. The Facility Manager shall provide follow-up oral notification to the regulator via the Headquarters Emergency Operations Center within two hours of identification of further degradation in the level of safety of the facility or other worsening conditions. A change in a reporting level to an Emergency level is to be orally reported within 15 minutes of the recategorization.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 1.3.17 Incident Investigations~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Safety Criterion: 7.7 - 6

The Facility Manager shall provide written notification of all reportable occurrences, including summaries of Emergencies, to the regulator before the close of the next business day from the time of categorization of the occurrence (not to exceed 80 hours). An Update Occurrence Report shall be submitted when significant new information (including any changes in categorization) is available.

Completion of the Final Occurrence Report is required when the analysis of the occurrence has been completed, root cause and contributing cause(s) finalized, corrective action(s) determined and scheduled, and lessons learned identified. The Final Occurrence Report shall be submitted to the regulator within 45 days of categorization of the occurrence.

The Occurrence Report shall contain, at a minimum, the following information about each reportable occurrence at the facility:

- (1) An alphanumeric occurrence report number identifying the regulatory field office, the contractor, the facility, the year of the occurrence, and the sequential number of the occurrence
- (2) The number of occurrences in the report
- (3) Category of the occurrence
- (4) Regulatory program office responsible for the facility involved
- (5) All systems, equipment, structural items, administrative controls, or procedures involved in the occurrence or defect identification, including information related to manufacturers, types, model numbers, size, procedure numbers, and (for defect identification) the number of affected components
- (6) Date and time when the occurrence was discovered and categorized
- (7) Date and time of notification of regulatory and state and local authorities

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7.0 Management and Operations

- (8) A thorough and complete description of what occurred or the defect reported, including a sequence of events and a description of failures (or potential failures and the safety significance with respect to defect identification), so that regulatory and contractor personnel, not familiar with the facility-specific design features or administrative controls employed, can understand the complete occurrence and any substantial safety hazard which could result
- (9) Operational status of the facility or equipment at the time of the occurrence, including the status of structures, systems, or components that were inoperable at the start of the event and that contributed to the event
- (10) Immediate or remedial actions taken to place the facility, system, or equipment in a safe, stable condition, to return them to service, or to correct or alleviate the anomalous condition, and the results of those actions
- (11) Cause of the occurrence, including direct and contributing causes and the root cause
- (12) Recommendations about whether further evaluation is required and, if so, before or after returning the facility to operation
- (13) Action taken or planned to correct the problem and the identified cause and to prevent recurrence
- (14) Impact of the occurrence on the environment, health and safety of workers, the public, and on-site and off-site environs (including quantities and types of radioactive materials released)
- (15) Levels and types of contamination, human exposures, and known or projected environmental, safety, and health impacts
- (16) Impact of the occurrence on the affected program and/or project
- (17) Impact of the occurrence on the adequacy of national codes and standards and regulatory requirements
- (18) Lessons learned from the occurrence that could be of importance to other facility operators or that shall be addressed in personnel training or facility procedures
- (19) Any previous similar events at the same facility that are known to the Facility Manager
- (20) The name and telephone number of a person within the Facility Manager's organization who is knowledgeable about the occurrence

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 1.3.17 Incident Investigations~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Regulatory Basis

DOE/RL-96-0006

4.3.1.8 *Conduct of Operations-Operational Events*

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7.0 Management and Operations

Safety Criterion: 7.7 - 7

Procedures shall be written and implemented to carry out categorization, notification, and reporting requirements for reportable occurrences.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 3.16.3 Incident Investigations~~

~~Section: 5.6.7 Investigations of Incidents~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Safety Criterion: 7.7 - 8

The services of the Environment Safety & Health (ES&H) reporting system, maintained by the Office of Environment, Safety, and Health, shall be used to meet the documentation and distribution requirements of this section.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 3.16.3 Incident Investigations~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

Safety Criterion: 7.7 - 9

The RPP-WTP contractor shall ensure that subcontractors and suppliers report defective items, materials, and services and shall specify these requirements in applicable procurement documents.

Implementing Codes and Standards

~~24590-WTP-ISMP-ESH-01-001, Integrated Safety Management Plan~~

~~Section: 5.2 Control of Subcontractors~~

[DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operations Information, as tailored in SRD Volume II, Appendix C](#)

X.0 DOE Manual 232.1-1A, Occurrence Reporting and Processing of Operational Information

Revision: 21 July 1997

Sponsoring Organization: DOE, Office of Environment, Safety and Health

RPP-WTP Specific Tailoring

The following tailoring of DOE Manual 232.1-1A, *Occurrence Reporting and Processing of Operational Information*, is required for use by the RPP-WTP contractor as an Implementing Standard for the preparation of Reporting and Incident Investigation.

Page 7, Section 5.3.1 Emergencies

Delete DOE O 151.1, Comprehensive Emergency Management System.

Justification: DOE O 151.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 7, Section 5.3.1 Emergencies

Change the 1st sentence to: The Facility Manager is required to notify the regulator of Emergencies within 15 minutes with follow-up oral notifications via the Headquarters Emergency Operations Center within 2 hours of identification of further degradation in the level of safety of the facility or other worsening conditions.

Justification: This is required to implement SRD Safety Criterion 7.7-5.

Page 8, Section 5.3.2.g

In the last sentence delete “in accordance with DOE O 151.1, COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM”.

Justification: DOE O 151.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 9, Section 5.5 Occurrence Investigation and Analysis

Delete the 2nd sentence: “DOE 5480.19, CONDUCT OF OPERATIONS REQUIREMENTS FOR DOE FACILITIES, and DOE-STD-1045-93, “Guide to Good Practices for Notifications and Investigation of Abnormal Events”, should be considered when establishing a program for investigation of occurrences.”

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Appendix C - Implementing Standards

Justification: DOE O 5480.19 and DOE-STD-1045-93 are not standards imposed on the RPP-WTP or committed to in an authorization basis document.

Page 9, Section 5.5.a

Delete the last part of the last sentence: “discussed in DOE-NE-STD-1004-92, “Root Cause Analysis Guidance Document.””

Justification: DOE-NE-STD-1004-92 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 18, Section 9.2 Categorization Use

Delete the last paragraph: “DOE O 151.1, COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM, establishes facility implementation procedures for Emergencies, including the reporting criteria and oral notification requirements. This Manual shall be used to satisfy the written reporting requirements for Emergencies.”

Justification: DOE O 151.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 19, Section 9.3 Group 1D Unusual Occurrence (1)

Change to” “Identification of radioactive contamination offsite in excess of 100 times any of the surface contamination levels specified in 10 CFR 835, Occupational Radiation Protection, Appendix D, that has not been previously identified and formally documented.”

Justification: DOE O 5400.5 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 20, Section 9.3 Group 1D Unusual Occurrence (2)

Change to: “Loss of accountability of a sealed source or identification of lost radioactive material that exceeds 100 times the quantities specified in 10 CFR 835, Occupational Radiation Protection, Appendix E.”

Justification: DOE N 441.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 20, Section 9.3 Group 1D Off-Normal (1)

Change to: “Any unplanned spill of liquids in excess of one gallon contaminated with radioactive material in concentrations greater than five times the Derived Concentration Guide values listed in 10 CFR 835, Occupational Radiation Protection, Appendix A.”

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Appendix C - Implementing Standards

Justification: DOE O 5400.5 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 20, Section 9.3 Group 1D Off-Normal (4)

Change to” “Identification of radioactive contamination offsite in excess of any of the surface contamination levels specified in 10 CFR 835, Occupational Radiation Protection, Appendix D, that has not been previously identified and formally documented.”

Justification: DOE O 5400.5 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 20, Section 9.3 Group 1D Off-Normal (5)

Change to: “Loss of accountability of a sealed source or identification of lost radioactive material that exceeds ten times and is less than 100 times the quantities specified in 10 CFR 835, Occupational Radiation Protection, Appendix E.”

Justification: DOE N 441.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 21, Section 9.3 Group 1D Off-Normal (6)

Change to: “Loss of accountability of a sealed source or identification of lost radioactive material that one to ten times the quantities specified in 10 CFR 835, Occupational Radiation Protection, Appendix E.

Justification: DOE N 441.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 24, Section 9.3 Group 2A Unusual Occurrence (2)

In the 1st sentence delete “as defined in DOE O 151.1.”

Justification: DOE O 151.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 24, Section 9.3 Group 2B Unusual Occurrence (2)

In the 1st sentence delete “as defined in DOE O 151.1. COMPREHENSIVE EMERGENCY MANAGEMENT SYSTEM”.

Justification: DOE O 151.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

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Appendix C - Implementing Standards

Page 27, Section 9.3 Group 3A Unusual Occurrence (2)

Delete “and Office of Management and Budget (OMB) No. 1200-0029”.

Justification: Office of Management and Budget (OMB) No. 1200-0029 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 29, Section 9.3 Group 4A Unusual Occurrence

Delete “or DOE 5400.5, Chapter II, Section 1 (for offsite exposures to member of the public)”.

Justification: DOE O 5400.5 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 29, Section 9.3 Group 4A Off-Normal (3)

Change “DOE 5400.5, Chapter II, Section 7” to “10 CFR 835, Occupational Radiation Protection, Subpart C”.

Justification: DOE O 5400.5 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 31, Section 9.3 Group 5B Unusual Occurrence

Delete “(determined in accordance with DOE M 471.2-1).”

Justification: DOE M 471.2-1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 32, Section 9.3 Group 5B Off-Normal

Delete “(determined in accordance with DOE M 471.2-1).”

Justification: DOE M 471.2-1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 34, Section 9.3 Group 5H Off-Normal (2)

Change to: “Loss or theft of DOE firearms or munitions.

Justification: DOE 5632.7A is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 36, Section 9.3 Group 6 Transportation

In the 1st paragraph delete the 3rd sentence.

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Appendix C - Implementing Standards

Justification: The RPP-WTP is not committed to provide offsite transportation.

Page 43, Section 9.3 Group 10C Off-Normal (1)

Change to “Any event resulting in the initiation of a Type A or B investigation”.

Justification: DOE O 225.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 51, Section 10.2 Occurrence Report Items (20)-(22)

Delete the 5th sentence.

Justification: DOE-NE-STD-1004-92 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 61, Section 10.3.1.c Impact on Worker Due to Contamination Occurrence – Item 27 1.b

Delete “Evaluation to be initiated pursuant to DOE O 225.1 requirements”.

Justification: DOE O 225.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 62, Section 10.3.2.c Impact on Worker Due to Contamination Occurrence – Item 27 2.b

Delete “Evaluation to be initiated pursuant to DOE O 225.1 dependent upon level by which Appendix D limits are exceeded.”

Justification: DOE O 225.1 is not a standard imposed on the RPP-WTP or committed to in an authorization basis document.

Page 63, Section 11 References

Delete 10 CFR Part 71, 14 CFR, Aeronautics and Space, 46 CFR (Shipping), 49 CFR Parts 106-180, 200-250, and 350-399, DOE M 471.2-1, DOE N 441.1, DOE O 151.1, DOE O 225.1, DOE O 360.1, DOE O 420.1, DOE O 440.1, DOE O 5400.5, DOE O 5480.19, DOE O 5480.23, DOE O 5632.7A, DOE/EH-0256T, DOE-NE-STD-1004-92, DOE-STD-1045-93 and OMB No. 1200-0029.

Justification: CFR, OMB and DOE documents listed are not applicable to the RPP-WTP.

**Page 6, Appendix A, Item 35 Safety Class Structures, Systems, or Components
(Safety Class SSC's)**

Replace with “Nuclear facility structures, systems, or components (SSCs) shall be as defined in terms of categorization and terminology in accordance with SRD Criterion 1.0-8”.

Justification: The classification of SSCs for the RPP-WTP must be consistent with the definition of Important to Safety included in the Glossary of DOE/RL-96-0006.

**Page 6, Appendix A, Item 36 Safety Significant Structures, Systems, or Components
(Safety Significant SSC's)**

Replace with “Nuclear facility structures, systems, or components (SSCs) shall be as defined in terms of categorization and terminology in accordance with SRD Criterion 1.0-8”.

Justification: The classification of SSCs for the RPP-WTP must be consistent with the definition of Important to Safety included in the Glossary of DOE/RL-96-0006.

IDENTIFICATION OF IMPLEMENTING STANDARDS FOR THE RPP-WTP REPORTING AND INCIDENT INVESTIGATION

1 Purpose

The River Protection Project Waste Treatment Plant (RPP-WTP) project contract with the Department of Energy (DOE) [Ref. 1] requires that the RPP-WTP contractor develop a reporting and incident investigation system in accordance with the requirements of DOE Manual 232.1-1A, *Occurrence Reporting and Processing of Operations Information*. The contract also requires compliance with 10 CFR 830 and other laws and regulations. 10 CFR 835, *Occupational Radiation Protection* and 10 CFR 830.350, *Occurrence Reporting and Processing of Operations Information* (when it becomes effective) set forth occurrence reporting requirements for the DOE and contractors responsible for the management and operation of DOE-owned and DOE-leased facilities. With the transition of the RPP-WTP project to the Bechtel National, Inc (BNI) design, construction, and commissioning (DC&C) contract, the standard selected for the implementing standard for the project incident reporting system was evaluated to determine if a new standard should be selected. This attachment to ABCN-24590-01-00007 documents this evaluation of the selection of a new implementing standard for reporting and incident investigation.

2 Scope

This attachment documents the results of a specially constituted Integrated Safety Management (ISM) team for re-evaluation and identification of a reporting and incident investigation implementing standard. The attachment to ABCN-24590-01-00007 furnishes a summary of an integrated safety management process for identification of these standards, rationale for the re-evaluation and identification of the standard, and documentation to demonstrate the standard meet the ISM standards selection process acceptance criteria.

In support of re-evaluation of the implementing standard for a reporting and incident investigation system a “standards selection process”, using the project ISM process, was undertaken in compliance with the DOE/RL-96-0004 [Ref. 5] regulatory process. The project-specific implementing standard for this regulatory process is detailed in Appendix A of the SRD [Ref. 2], “Implementing Standard for Safety Standards and Requirements Identification”.

The identification of reporting and incident investigation implementing codes and standards was performed in compliance with the procedural requirements specified in project procedure K70P568 [Ref. 6]. This procedure requires that identification of standards, other than engineering/design, manufacture/fabrication, and construction standards (e.g., standards for quality assurance, conduct of operations, etc.), is performed by specially constituted teams formed by the Process Management Team (PMT).

3 Discussion

Based on the standards identification results of the ISM team and the PMT recommendation of the selected standard to the RPP-WTP Project Safety Committee (PSC) Chair, the PSC Chair requests the PSC confirm the selected set of standards.

3.1 Approach

Upon confirmation of the ISM process-selected implementing standard for reporting and incident investigation by the PSC and approval by the Project Manager, based on the PSC recommendation, the implementing standard will be proposed for DOE approval of an SRD update, via the project Authorization Basis Maintenance Process.

Following approval of the ABCN by the DOE Office of Safety Regulation (OSR), the results of the standards selection ISM process will be documented in the applicable SRD safety criteria for the Reporting and Incident Investigation.

3.1.1 ISM Team Composition

A multi-discipline ISM team provided recommendation of an implementing standard for the RPP-WTP Reporting and Incident Investigation. This team¹ consisted of the following individuals:

Name	Title	Department
Ken Gibson, team chairperson	Safety and Licensing Engineer	ES&H/Regulatory Safety
Tom Meagher	Manager, Industrial Safety	ES&H/Industrial Safety
Merl Rosenthal	Safety Engineer	ES&H/Industrial Safety

Note 1: The need to establish this team, selection of appropriate chairperson, and determination of scope of discipline involvement was confirmed at the PMT meeting held on May 7, 2001

3.1.2 Implementing Standards Selection Criteria

When properly implemented, the set of standards for incident reporting will:

- 1) Provide adequate safety
- 2) Comply with applicable laws and regulations
- 3) Conform with the Top-Level Safety Standards and Principles

At a minimum, the assessment team also considered the following contractual [Ref. 1] requirements for the radiological, nuclear, and process safety as excerpted from the contract Statement of Work, Section C, Standard 7, Item (2):

- (i) The Contractor shall develop and implement an integrated standards-based safety management program to ensure that radiological, nuclear, and process safety requirements are defined, implemented, and maintained. Radiological, nuclear, and process safety requirements shall be adapted to the specific hazards associated with the Contractor's WTP activities.
- (ii) The Contractor's integrated standards-based safety management program shall be developed to comply with the specific nuclear safety regulations defined in the effective rules of the 10 CFR 800 series of nuclear safety requirements and with the regulatory program established in the following four documents:
 - (A) DOE/RL-96-0003, *DOE Process for Radiological, Nuclear, and Process Safety Regulation of the RPP Waste Treatment Plant Contractor*;
 - (B) DOE/RL-96-0004, *Process for Establishing a Set of Radiological, Nuclear, and Process Safety Standards and Requirements for the RPP Waste Treatment Plant Contractor*;
 - (C) DOE/RL-96-0005, *Concept of the DOE Process for Radiological, Nuclear, and Process Safety Regulation of the RPP Waste Treatment Plant Contractor*; and
 - (D) DOE/RL-96-0006, *Top-Level Radiological, Nuclear, and Process Safety Standards and Principles for the RPP Waste Treatment Plant Contractor*.

Changes to the four documents will be analyzed under RL/REG-98-14, *Regulatory Unit Position on New Safety Information and Back-fits*, and, if implemented, dispositioned in accordance with the Section I Clause entitled, *Changes*.

The integrated standards-based safety management program shall integrate the appropriate planning and practices elements specified in 29 CFR 1910.119, *Occupational Safety and Health Act of 1970, Process Safety Management of Highly Hazardous Chemicals*, to the extent that highly hazardous chemicals are present in quantities covered by 29 CFR 1910.119.

- (iii) (only applicable to the Integrated Safety Management Plan)
- (iv) The Contractor shall prepare and submit to DOE for review and approval, the radiological, nuclear, and process safety deliverables defined in Table S7-1, *Radiological, Nuclear, and Process Safety Deliverables*. Each deliverable is structured around the following six activities:
 - (A) Standards Approval;
 - (B) Initial Safety Evaluation;
 - (C) Authorization for Construction and Cold Commissioning;
 - (D) Authorization for Hot Commissioning;
 - (E) Oversight Process Determination; and

(F) Deactivation Safety Assessment.

Additionally, the assessment team also considered the following contractual [Ref. 1] requirements as excerpted from the contract Statement of Work, Section C, Standard 1, Item f (3) and f (5):

- (3) Occurrence Reporting: The Contractor shall adhere to DOE Manual 232.1-1A, *Occurrence Reporting and Processing of Operations Information* (or current revision) with Hanford Site specific requirements and methods for notification (Table C.5-1-1, Deliverable 1.8).
- (5) Accident Investigation: The Contractor and, as necessary, all subcontractors shall support Type A and Type B accident investigations for accidents that may occur during the Contractors activities. The Contractor and all its subcontractors shall establish and maintain readiness to respond to accidents, mitigate potential consequences, assist in collecting and processing evidence, and assist with the accident investigation. This shall include preserving the accident scene and providing support to the accident investigation board.

3.2 Results of ISM Team Standards Selection Process

The ISM team reviewed the contract required standards and a candidate set of implementing standards. This set of standards provided acceptable methods for implementing the requirements of 10 CFR 835, the contract, and the SRD. DOE Manual 232.1-1A fully meets the requirements for the RPP-WTP project. A listing of these candidate standards follows:

DOE Order 232.1-1A, *Occurrence Reporting and Processing of Operations Information*

DOE Manual 232.1-1A, *Occurrence Reporting and Processing of Operations Information*

DOE-NE-STD-1004-92, *Root Cause Analysis Guidance Document*

DOE-STD-1045-93, *Guide to Good Practices for Notifications and Investigation of Abnormal Events*

Summary of Selected Implementing Standard:

The ISM Team determined that, from the set of candidate implementing standards for reporting and incident investigation, DOE Manual 232.1-1A, *Occurrence Reporting and Processing of Operations Information* provides an adequate implementing standard for reporting and incident investigation needed to support the mission of the RPP-WTP.

Confirmation of the adequacy of the project-implementing standard for reporting and incident investigation, using the DOE Manual 232.1-1A, was provided by comparison to the standards acceptance criteria. The ISM Team made this confirmation through the application of the ISM (“0004”) process.

The ISM Team assessed the selected implementing standard to confirm that it: 1) provides adequate safety, 2) complies with applicable laws and regulations, and 3) conforms to the top-level safety standards and principles. A summary of how the selected standard met these three criteria, as well as how the implementing standards is consistent with the applicable safety criteria of the SRD requirements specified in the SRD Chapter 7.7 is presented in the following sections.

3.2.1 Adequate Safety

The current set of DOE approved safety criteria requirements for reporting and incident investigation is furnished in SRD safety criteria 7.7-1 through 7.7-9. There are no proposed changes to this set of currently approved SRD safety criteria, other than the selection of the new implementing standard. Use of DOE Manual 232.1-1A as the implementing standard for SRD Safety Criteria 7.7-1 through 7.7-9 was reviewed by the ISM team to confirm that adequate safety is provided by using this standard for reporting and incident investigation. This review was conducted through assessment of the scope and content of the implementing standard to ensure it provided adequate guidance to meet existing SRD safety criteria for reporting and incident investigation.

The DOE Manual 232.1-1A is a comprehensive, recognized standard for reporting and incident investigation, that provides guidance to support reporting and incident investigation covered in the SRD safety criteria. Thus, use of this implementing standard demonstrates a continued commitment to adequate safety. The documentation and distribution requirements will be satisfied by utilization of a centralized unclassified DOE operational database, presently the computerized Occurrence Reporting and Processing System (ORPS).

The adequacy of these SRD safety criteria to support adequate safety is supported by prior DOE evaluation of the adequacy of these SRD safety criteria. The RU reviewed the original SRD safety criteria and reported the results of the review in RL/REG-98-01. The conclusions of the review were that the project had established safety criteria (including SRD SC 7.7-1 through 7.7-9) that provided commitment to full compliance with 10 CFR 800 series of nuclear safety requirements and the top level safety standards of DOE/RL-96-0006. Use of the implementing standard is consistent with SAR related commitments for Reporting and Incident Investigation in the ISMP.

3.2.2 Compliance with Applicable Laws and Regulations

Selection of DOE Manual 232.1-1A as implementing standard is compliant with the current 10 CFR 835, *Occupational Radiation Protection* requirements.

3.2.3 Conformance to Top-Level Safety Standards

Top-level safety standards for reporting and incident investigation are provided in DOE/RL-96-0006 [Ref. 2]. These "0006" standards related to reporting and incident investigations are identified as follows, along with an assessment of how use of the selected implementing standard ensures conformance to these top-level safety standards.

DOE/RL-96-0006; Item 4.3.1.8 Operational Events

Facility management should institute measures to ensure that events relevant to safety are detected and evaluated, and that necessary corrective measures are taken promptly and information on them is disseminated. Operational event reports should be prepared and submitted to the Director of the Regulatory Unit. The facility management should have access to operational safety experience from other related facilities.

Evaluation: This principle is the subject of the requirements contained in SRD SC 7.7-6. In addition, the contract requires compliance with the nuclear safety regulations in the 10 CFR-800 series. 10 CFR 835 requires that contractors develop a process that requires that serious events or conditions be addressed and resolved and that the findings of the investigation be resolved. For RPP-WTP project, the DOE names DOE Manual 232.1-1A. Sections 5.4, 5.6, and 10 of DOE Manual 232.1-1A contain the description of these elements of the Reporting and Incident Investigation Program that will address these requirements.

Electronic distribution via ORPS per Section 5.0 of DOE Manual 232.1-1A will distribute final occurrence reports to ORP facility representative who will provide copy to OSR Regulatory Official. Therefore the use of DOE Manual 232.1-1A satisfies the top-level principle for reporting and incident investigation.

DOE/RL-96-0006; Item 5.2.10 Incident Investigation

The Contractor should investigate each incident, which results in, or could reasonably have resulted in, a major accident. The investigation should be conducted promptly and appropriated corrective measures should be recommended and implemented. The results of the investigation should be submitted to the Director of the Regulatory Unit for evaluation and in support of regulatory oversight.

Evaluation: The requirement to document incident investigations is the subject of SRD SC 7.7-1, 7.7-2 and 7.7-3. The contract requires compliance with the nuclear safety regulations in the 10 CFR-800 series. 10 CFR 835 requires that contractors investigate incidents and document appropriated corrective measures recommended for implementation. For RPP-WTP project, the DOE names DOE Manual 232.1-1A. Sections 5.4, 5.5, & 5.6 of DOE Manual 232.1-1A contain the description of these elements of the Reporting and Incident Investigation Program that will address these requirements. Electronic distribution via ORPS per Section 5.0 of DOE Manual 232.1-1A will distribute final occurrence reports to ORP facility representative who will provide copy to OSR Regulatory Official. Therefore the use of DOE Manual 232.1-1A satisfies the top-level principle for reporting and incident investigation.

3.2.4 Evaluation Against Applicable SRD Safety Criteria

The SRD safety criteria for incident reporting and investigation are provided in the Safety Criteria in SRD Section 7.7-1 through 7.7-9. Safety Criteria 7.7-1 through 7.7-9 address the reporting and incident investigation requirements for the facility. An evaluation, as summarized below, demonstrated the adequacy of the selected implementing standard in meeting these four safety criteria.

SRD Safety Criterion: 7.7-1

Each incident which results in, or could reasonably have resulted in a major accident shall be investigated. An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1. Section 5.4 of DOE Manual 232.1-1A describes the requirement to provide written notice to DOE within 80 hours. Categorization of incidents occurs within 2 hours of identification of occurrence/discovery per Section 5.2 of DOE Manual 232.1-1A, which initiates the incident investigation.

SRD Safety Criterion: 7.7-2

An incident investigation team shall be established and consist of at least one person knowledgeable in the process involved, including a subcontract employee if the incident involved work of the subcontractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident. A report shall be prepared at the conclusion of the investigation, which includes at a minimum:

- 1) Date of incident
- 2) Date investigation began
- 3) A description of the incident
- 4) The factors that contributed to the incident
- 5) Any recommendations resulting from the investigation

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. Section 5.5a of DOE Manual 232.1-1A describes the

requirement that the Facility Manager consider a graded approach for determining the level of effort for investigation and section 10 provides the description of required information. DOE Manual 232.1-1A provides adequate guidance to ensure appropriate incident investigation performance and documentation requirements are met.

SRD Safety Criterion: 7.7-3

A system shall be established to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented. The report shall be submitted to the regulator for evaluation and in support of regulatory oversight. The report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including subcontract employees where applicable. Incident investigation reports shall be retained for five years.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. Sections 5.5 & 5.6 of DOE Manual 232.1-1A describe the requirement for occurrence investigation and closure and record retention. Electronic distribution via ORPS per Section 5.0 of DOE Manual 232.1-1A will distribute occurrence reports to ORP facility representative who will provide copy to the regulator. DOE Manual 232.1-1A provides adequate guidance to ensure appropriate incident investigation performance and documentation requirements are met.

SRD Safety Criterion: 7.7-4

The Facility Manager shall categorize reportable incidents as soon as reasonably possible and in all cases within 2 hours of identification of the event or condition. If categorization is not clear, the occurrence shall be conservatively categorized at the higher level being considered. The occurrence categorization shall be elevated, maintained, or lowered, as appropriate, as further information is obtained.

Reportable occurrences shall be categorized in accordance with the following guidance:

“Emergencies” are the most serious reportable occurrences and they require an increased alert status for on-site personnel and, in specified cases, for off-site authorities. Emergencies require a time-urgent notification as part of the facility’s comprehensive emergency management program.

“Unusual Occurrences” are the category of non-emergency reportable occurrences that exceed the off-normal occurrence threshold and have significant impact or potential for impact on safety, the environment, health, safeguards and security, or operations.

“Off-Normal Occurrences” are the category of abnormal or unplanned reportable occurrences that adversely affect, potentially affect, or are indicative of degradation in the level of safety, safeguards and security, environmental or health protection, performance or operation of the facility.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. Sections 5.2 & 9 of DOE Manual 232.1-1A describe these requirements. DOE Manual 232.1-1A provides adequate guidance to ensure appropriate categorization of reportable incidents is performed and documentation requirements are met.

SRD Safety Criterion: 7.7-5

The Facility Manager shall orally notify the regulator of Emergencies within 15 minutes. In addition, the Facility Manager shall orally notify the regulator of Unusual Occurrences, as soon as practical, but in all cases within 2 hours of categorization. The Facility Manager shall contact the regulator via the Headquarters Emergency Operations Center.

Follow-up Notification. The Facility Manager shall provide follow-up oral notification to the regulator via the Headquarters Emergency Operations Center within two hours of identification of further degradation in the level of safety of the facility or other worsening conditions. A change in a reporting level to an Emergency level is to be orally reported within 15 minutes of the recategorization.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manuals 232.1-1A. Sections 5.3.1 of DOE Manual 232.1-1A has been tailored to include the requirement for 15 minute notification to DOE for emergencies. Sections 5.3.2 of DOE Manual 232.1-1A describe the requirement for the requirement for 2 hour notifications. DOE Manual 232.1-1A provides adequate guidance to ensure appropriate categorization of reportable incidents is performed and documentation requirements are met.

SRD Safety Criterion: 7.7-6

The Facility Manager shall provide written notification of all reportable occurrences, including summaries of Emergencies, to the regulator before the close of the next business day from the time of categorization of the occurrence (not to exceed 80 hours). An Update Occurrence Report shall be submitted when significant new information (including any changes in categorization) is available.

Completion of the Final Occurrence Report is required when the analysis of the occurrence has been completed, root cause and contributing cause(s) finalized, corrective action(s) determined and scheduled, and lessons learned identified. The Final Occurrence Report shall be submitted to the regulator within 45 days of categorization of the occurrence.

The Occurrence Report shall contain, at a minimum, the following information about each reportable occurrence at the facility:

- 1) An alphanumeric occurrence report number identifying the regulatory field office, the contractor, the facility, the year of the occurrence, and the sequential number of the occurrence
- 2) The number of occurrences in the report
- 3) Category of the occurrence
- 4) Regulatory program office responsible for the facility involved
- 5) All systems, equipment, structural items, administrative controls, or procedures involved in the occurrence or defect identification, including information related to manufacturers, types, model numbers, size, procedure numbers, and (for defect identification) the number of affected components
- 6) Date and time when the occurrence was discovered and categorized
- 7) Date and time of notification of regulatory and state and local authorities
- 8) A thorough and complete description of what occurred or the defect reported, including a sequence of events and a description of failures (or potential failures and the safety significance with respect to defect identification), so that regulatory and contractor personnel, not familiar with the facility-specific design features or administrative controls employed, can understand the complete occurrence and any substantial safety hazard which could result
- 9) Operational status of the facility or equipment at the time of the occurrence, including the status of structures, systems, or components that were inoperable at the start of the event and that contributed to the event
- 10) Immediate or remedial actions taken to place the facility, system, or equipment in a safe, stable condition, to return them to service, or to correct or alleviate the anomalous condition, and the results of those actions
- 11) Cause of the occurrence, including direct and contributing causes and the root cause
- 12) Recommendations about whether further evaluation is required and, if so, before or after returning the facility to operation
- 13) Action taken or planned to correct the problem and the identified cause and to prevent recurrence
- 14) Impact of the occurrence on the environment, health and safety of workers, the public, and on-site and off-site environs (including quantities and types of radioactive materials released)

- 15) Levels and types of contamination, human exposures, and known or projected environmental, safety, and health impacts
- 16) Impact of the occurrence on the affected program and/or project
- 17) Impact of the occurrence on the adequacy of national codes and standards and regulatory requirements
- 18) Lessons learned from the occurrence that could be of importance to other facility operators or that shall be addressed in personnel training or facility procedures
- 19) Any previous similar events at the same facility that are known to the Facility Manager
- 20) The name and telephone number of a person within the Facility Manager's organization who is knowledgeable about the occurrence

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. Sections 5.4, 5.6 & 10 of DOE Manual 232.1-1A describe the requirements for written notifications, Final Occurrence Report and contents of the occurrence report. DOE Manual 232.1-1A provides adequate guidance to ensure appropriate categorization of reportable incidents is performed and documentation requirements are met.

SRD Safety Criterion: 7.7-7

Procedures shall be written and implemented to carry out categorization, notification, and reporting requirements for reportable occurrences.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. Sections 8 of DOE Manual 232.1-1A describe the requirement for proceduralizing the reporting and incident investigation requirements. DOE Manual 232.1-1A provides adequate guidance to ensure appropriate categorization of reportable incidents is performed and documentation requirements are met.

SRD Safety Criterion: 7.7-8

The services of the Environment Safety & Health (ES&H) reporting system, maintained by the Office of Environment, Safety, and Health, shall be used to meet the documentation and distribution requirements of this section.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manuals 232.1-1A. DOE Manual 232.1-1A, sections 5 & 7 provide adequate guidance to ensure that the ES&H reporting system, maintained by the Office of Environment, Safety and Health will be used to meet the documentation and distribution requirements for reporting and incident investigation.

SRD Safety Criterion: 7.7-9

The RPP-WTP contractor shall ensure that subcontractors and suppliers report defective items, materials, and services and shall specify these requirements in applicable procurement documents.

Evaluation: Contract No DE-AC27-01RV14136 Standard 1, section (f)(3) specifically requires compliance with DOE Manual 232.1-1A. DOE Manual 232.1-1A, section 5 and 9.3 Group 7B provides adequate guidance to ensure that subcontractors and suppliers report defective items, materials, and services and appropriate performance and documentation requirements are met.

4 Conclusions

The ISM Team determined that the DOE Manual 232.1-1A, as tailored in SRD Volume II, Appendix C provides an adequate and appropriate implementing standard for reporting and incident investigation for

the RPP-WTP. The ISM Team determined that the DOE standard provides adequate safety, complies with applicable laws and regulations, and conforms to the Top-Level Safety Standards and Principles. Use of this implementing standard was found by the ISM Team to be consistently reflected in the reporting and incident investigation related commitments contained within the ISMP.

5 Recommendations

The DOE Manual 232.1-1A, as tailored in SRD Volume II, Appendix C should be recommended by the Process Management Team to the Project Safety Committee for confirmation as the implementing standard for SRD SC 7.7-1 through 7.7-9.

6 References

1. DOE Contract DE-AC27-01RV14136, December 2000, U.S. Department of Energy, Office of River Protection, Richland, Washington
2. *Safety Requirements Document*, 24590-WTP-SRD-ESH-01-001, Revision 0, Bechtel National, Inc., Richland, Washington. (Revision 4 issued April 2001).
3. 10 CFR 830 Subpart A, "Quality Assurance", *Code of Federal Regulations*, as amended.
4. *Top-level Radiological, Nuclear, and Process Safety Standards and Principles for TWRS Privatization Contractors*, DOE/RL-96-0006, Revision 1, July 1998, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
5. *Process for Establishing a Set of Radiological, Nuclear, and Process Safety Standards, and Requirements for TWRS Privatization*, DOE/RL-96-0004, Revision 1, July 1998, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
6. River Protection Project Waste Treatment Plant Project Procedure, K70P568, "Hazard Analysis, Development of Hazard Control Strategies, and Identification of Standards", Rev. 0, 2/05/01

**Safety Requirements Document, 24590-WTP-SRD-ESH-01-001-02
Evaluation of Current and Proposed Implementing Standard**

SRD Safety Criterion	Currently Implementing ISMP Section	Proposed Code/Standard	Basis/Rationale
<p>7.7-1</p> <p>Each incident which results in, or could reasonably have resulted in a major accident shall be investigated. An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.</p>	<p>1.3.17 Incident Investigations</p> <p>The importance of the identification and correction of nonconforming conditions as part of a safety approach for the Project is recognized. To ensure that significant incidents that could adversely affect the quality, security, environment, operations, or health and safety of public and workers are brought to the attention of management, the project regulator, and the DOE Occurrence Reporting and Processing System, the ISMP requires incident investigation and reporting. The process safety management regulations found in 29 CFR 1910.119(m)(1) require that employers investigate and report incidents that result in, or could have resulted in, a catastrophic release of a hazardous chemical in the workplace. The incident investigations for the Project are expanded in scope to include accidental radionuclide releases and the construction and startup testing phases of the project. Also, reporting of events of less severity than those required of process safety management are included in the program. Incidents to be reported to the regulator include, for example, events or conditions at the facility that resulted in degradation of the principal safety barriers or in a condition beyond the design basis or emergency procedures. The incident investigation process requires that serious events or conditions are addressed and resolved and that the findings of the investigation are resolved.</p> <p>The investigations are conducted in accordance with the Safety Criteria in SRD Volume II, Section 7.7, "Reporting and Incident Investigation." Additional detail on the implementing procedures are contained in ISAR Section 3.7, "Incident Investigations".</p> <p>5.6.7 Investigations of Incidents</p> <p>For incidents that have the potential to result in a major accident or a release of hazardous or radioactive material from the controlled area of the RPP-WTP, an investigation is conducted in accordance with the Safety Criteria of SRD Volume II, Section 7.7, "Reporting and Incident Investigation." Incidents are categorized as soon as possible and, in all cases, within 2 hours as Emergency, Unusual, and Off-Normal occurrences. When the categorization is not clear, the occurrence is conservatively categorized at the higher level. Investigation of the incident is initiated as promptly as possible, but not later than 48 hours following the incident. The focus of the RPP-WTP incident investigation program is the identification of the events and near misses, determination of root causes, identification of corrective actions, dissemination of information to the lessons learned program, reporting of incidents, and the monitoring of the effectiveness of corrective actions. Additional information on incident investigation is provided in ISMP Section 3.16.3, "Incident Investigations". The incident reporting procedure and additional detail on the incident investigation program is contained in ISAR Section 3.7, "Incident Investigations".</p> <p>An incident investigation team is established for incidents that have the potential to result in a major accident or a release of hazardous or radioactive material from the controlled area. The team consists of at least one person knowledgeable in the process involved, including a subcontract employee if the incident involved work of the subcontractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident. A report is prepared at the conclusion of the investigation.</p> <p>The report is reviewed with all affected personnel whose job tasks are relevant to the incident findings. The incident report includes as a minimum:</p> <ol style="list-style-type: none"> 1) Date of incident 2) Date investigation began 	<p>DOE M 232.1-1A Section 5.4</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified sections of the ISMP (1.3.17 & 5.6.7) provide additional detail for reporting and incident investigation, these requirements remain as RPP-WTP Project commitments that will be implemented with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p> <p>ISAR section 3.7, <i>Incident Investigation</i> identified in ISMP section 1.3.17 was reviewed and does not represent additional requirements that are not covered by the requirements of DOE M 232.1-1A. As described, the ISAR reference is intended to provide additional guidance for the development of implementing procedures.</p>

**Safety Requirements Document, 24590-WTP-SRD-ESH-01-001-02
Evaluation of Current and Proposed Implementing Standard**

SRD Safety Criterion	Currently Implementing ISMP Section	Proposed Code/ Standard	Basis/Rationale
	<p>3) A description of the incident</p> <p>4) Results of the root cause analysis</p> <p>5) The factors that contributed to the incident</p> <p>6) Any recommendations resulting from the investigation.</p> <p>A system is established to promptly address, resolve, and document the incident report findings and recommendations.</p> <p>The incident categorization is one factor used in determine the extent of the incident investigation in terms of the size of the investigation team, its independence, and the depth of the root cause analysis. By this process, the extent of the incident investigation is tailored to the consequences of the event or the potential consequences of a 'near miss.' For example, by tying the incident investigation to the event categorization, an increasing level of investigation is applied to the following events: 1) a hazardous substance release that exceeds 50% of a CERCLA reportable quantity; 2) a chemical release that violates environmental requirements in state or federal permits; and 3) a chemical release that had reported effects on co-located workers.</p> <p>The categorization process is not the only factor that determines the extent of the incident investigation. For example, incidents that are repeat occurrences will receive more in-depth investigation, in part, to determine the reason for ineffectiveness of the corrective actions. Where repeat incidents or recurring causes are indicated, prompt follow-up action is initiated to identify additional corrective actions needed to preclude recurrence. These additional corrective actions are tracked to completion and their adequacy verified to ensure correction of the problem. An evaluation also is conducted for repeat occurrences to determine if the trend represents a programmatic failure reportable under 10 CFR 820.</p> <p>The investigative process is used to gain an understanding of the incident, its causes, and corrective actions necessary to prevent recurrence. The process is summarized below.</p> <p>1) The scope and depth of analysis of a particular incident is tailored to the significance of the incident. The tailoring of the analysis (i.e., incident investigation) is in part dependent on the categorization of the incident, if the incident is a repeat occurrence, and if the incident is considered a significant condition adverse to quality.</p> <p>2) If the investigative process warrants a team investigation as determined from the evaluation above, at least one member of the investigative team is assigned from the organization most closely involved with the activities that were ongoing at the time of the event or incident. This member provides detailed first-hand knowledge of the performance of the activities. Other members are independent, and all members are knowledgeable of facility design and operations or are experts in safety (industrial or process).</p> <p>3) At least one member is formally trained in at least one of the various industry-accepted methods of incident investigation and cause determination.</p> <p>4) The team investigates the event, identifies underlying causes, formulates corrective action recommendations, and documents the results of the investigation.</p> <p>5) The incident investigation process, its implementation, and its effectiveness are reviewed periodically by the Project Safety Committee or by audits or assessments.</p>		

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<p>7.7-2</p> <p>An incident investigation team shall be established and consist of at least one person knowledgeable in the process involved, including a subcontract employee if the incident involved work of the subcontractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident. A report shall be prepared at the conclusion of the investigation which includes at a minimum:</p> <ol style="list-style-type: none"> 1) Date of incident 2) Date investigation began 3) A description of the incident 4) The factors that contributed to the incident 5) Any recommendations resulting from the investigation 	<p>1.3.17 Incident Investigation & 5.6.7 Investigation of Incidents</p> <p align="center">SAME AS ABOVE</p> <p>8.0 Document Control and Maintenance</p> <p>The quality assurance program (QAP) requirements for the Tank Waste Remediation System-Privatization (TWRS-P) Project records management system is provided in Section 4.0, "Documents and Records," of the QAP (BNFL 1998c).</p> <p>Documents are prepared, reviewed, approved, issued, and revised to prescribe processes, specify requirements, and establish design. Safety documents developed as a part of the safety management process controlled by the QAP include but are not limited to those identified in Table 8-1. The column "Records" lists the documents that address the items in the "Subject" column.</p>	<p>DOE M 232.1-1A Section 5.5a</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified sections of the ISMP (1.3.17, 5.6.7 & 8.0) provide additional detail for reporting and incident investigation and document control, these requirements remain as RPP-WTP Project commitments that will be implemented with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p> <p>Note that only the portions of ISMP section 8.0 that pertain to incident investigations and reporting are covered by DOE M 232.1-1A.</p>
<p>7.7-3</p> <p>A system shall be established to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented. The report shall be submitted to the regulator for evaluation and in support of regulatory oversight. The report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including subcontract employees where applicable. Incident investigation reports shall be retained for five years.</p>	<p>5.6.7 Investigations of Incidents</p> <p align="center">SAME AS ABOVE</p>	<p>DOE M 232.1-1A Sections 5, 5.5 & 5.6</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified section of the ISMP (5.6.7) provides additional detail for the investigation of incidents, these requirements remain as RPP-WTP Project commitments that will be implementing with the</p>

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			development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.
<p>7.7-4</p> <p>The Facility Manager shall categorize reportable incidents as soon as reasonably possible and in all cases within 2 hours of identification of the event or condition. If categorization is not clear, the occurrence shall be conservatively categorized at the higher level being considered. The occurrence categorization shall be elevated, maintained, or lowered, as appropriate, as further information is obtained.</p> <p>Reportable occurrences shall be categorized in accordance with the following guidance:</p> <p>“Emergencies” are the most serious reportable occurrences and they require an increased alert status for on-site personnel and, in specified cases, for off-site authorities. Emergencies require a time-urgent notification as part of the facility’s comprehensive emergency management program.</p> <p>“Unusual Occurrences” are the category of non-emergency reportable occurrences that exceed the off-normal occurrence threshold and have significant impact or potential for impact on safety, the environment, health, safeguards and security, or operations.</p> <p>“Off-Normal Occurrences” are the category of abnormal or unplanned reportable occurrences that adversely affect, potentially affect, or are indicative of degradation in the level of safety, safeguards and security, environmental or health protection, performance or operation of the facility.</p>	<p>5.6.7 Investigations of Incidents</p> <p align="center">SAME AS ABOVE</p>	<p>DOE M 232.1-1A Sections 5.2 & 9</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified sections of the ISMP (5.6.7) provides additional detail for the investigation of incidents, these requirements remain as RPP-WTP Project commitments that will be implementing with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p>

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<p>7.7-5</p> <p>The Facility Manager shall orally notify the regulator of Emergencies within 15 minutes. In addition, the Facility Manager shall orally notify the regulator of Unusual Occurrences, as soon as practical, but in all cases within 2 hours of categorization. The Facility Manager shall contact the regulator via the Headquarters Emergency Operations Center.</p> <p>Follow-up Notification. The Facility Manager shall provide follow-up oral notification to the regulator via the Headquarters Emergency Operations Center within two hours of identification of further degradation in the level of safety of the facility or other worsening conditions. A change in a reporting level to an Emergency level is to be orally reported within 15 minutes of the recategorization.</p>	<p>1.3.17 Incident Investigations</p> <p>The importance of the identification and correction of nonconforming conditions as part of a safety approach for the Project is recognized. To ensure that significant incidents that could adversely affect the quality, security, environment, operations, or health and safety of public and workers are brought to the attention of management, the project regulator, and the DOE Occurrence Reporting and Processing System, the ISMP requires incident investigation and reporting. The process safety management regulations found in 29 CFR 1910.119(m)(1) require that employers investigate and report incidents that result in, or could have resulted in, a catastrophic release of a hazardous chemical in the workplace. The incident investigations for the Project are expanded in scope to include accidental radionuclide releases and the construction and startup testing phases of the project. Also, reporting of events of less severity than those required of process safety management are included in the program. Incidents to be reported to the regulator include, for example, events or conditions at the facility that resulted in degradation of the principal safety barriers or in a condition beyond the design basis or emergency procedures. The incident investigation process requires that serious events or conditions are addressed and resolved and that the findings of the investigation are resolved.</p> <p>The investigations are conducted in accordance with the Safety Criteria in SRD Volume II, Section 7.7, "Reporting and Incident Investigation." Additional detail on the implementing procedures are contained in ISAR Section 3.7, "Incident Investigations".</p>	<p>DOE M 232.1-1A Sections 5.3.1 & 5.3.2</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified section of the ISMP (1.3.17) provides additional detail for incident investigation, these requirements remain as RPP-WTP Project commitments that will be implementing with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p>
<p>7.7-6</p> <p>The Facility Manager shall provide written notification of all reportable occurrences, including summaries of Emergencies, to the regulator before the close of the next business day from the time of categorization of the occurrence (not to exceed 80 hours). An Update Occurrence Report shall be submitted when significant new information (including any changes in categorization) is available.</p> <p>Completion of the Final Occurrence Report is required when the analysis of the occurrence has been completed, root cause and contributing cause(s) finalized, corrective action(s) determined and scheduled, and lessons learned identified. The Final Occurrence Report shall be submitted to the regulator within 45 days of categorization of the occurrence.</p> <p>The Occurrence Report shall contain, at a minimum, the following information about each reportable occurrence at the facility:</p> <p>1) An alphanumeric occurrence report</p>	<p>1.3.17 Incident Investigations</p> <p>The importance of the identification and correction of nonconforming conditions as part of a safety approach for the Project is recognized. To ensure that significant incidents that could adversely affect the quality, security, environment, operations, or health and safety of public and workers are brought to the attention of management, the project regulator, and the DOE Occurrence Reporting and Processing System, the ISMP requires incident investigation and reporting. The process safety management regulations found in 29 CFR 1910.119(m)(1) require that employers investigate and report incidents that result in, or could have resulted in, a catastrophic release of a hazardous chemical in the workplace. The incident investigations for the Project are expanded in scope to include accidental radionuclide releases and the construction and startup testing phases of the project. Also, reporting of events of less severity than those required of process safety management are included in the program. Incidents to be reported to the regulator include, for example, events or conditions at the facility that resulted in degradation of the principal safety barriers or in a condition beyond the design basis or emergency procedures. The incident investigation process requires that serious events or conditions are addressed and resolved and that the findings of the investigation are resolved.</p> <p>The investigations are conducted in accordance with the Safety Criteria in SRD Volume II, Section 7.7, "Reporting and Incident Investigation." Additional detail on the implementing procedures are contained in ISAR Section 3.7, "Incident Investigations".</p>	<p>DOE M 232.1-1A Sections 5.4, 5.6 & 10</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified section of the ISMP (1.3.17) provides additional detail for incident investigation, these requirements remain as RPP-WTP Project commitments that will be implementing with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p>

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<p>number identifying the regulatory field office, the contractor, the facility, the year of the occurrence, and the sequential number of the occurrence</p> <p>2) The number of occurrences in the report</p> <p>3) Category of the occurrence</p> <p>4) Regulatory program office responsible for the facility involved</p> <p>5) All systems, equipment, structural items, administrative controls, or procedures involved in the occurrence or defect identification, including information related to manufacturers, types, model numbers, size, procedure numbers, and (for defect identification) the number of affected components</p> <p>6) Date and time when the occurrence was discovered and categorized</p> <p>7) Date and time of notification of regulatory and state and local authorities</p> <p>8) A thorough and complete description of what occurred or the defect reported, including a sequence of events and a description of failures (or potential failures and the safety significance with respect to defect identification), so that regulatory and contractor personnel, not familiar with the facility-specific design features or administrative controls employed, can understand the complete occurrence and any substantial safety hazard which could result</p> <p>9) Operational status of the facility or equipment at the time of the occurrence, including the status of structures, systems, or components that were inoperable at the start of the event and that contributed to the event</p> <p>10) Immediate or remedial actions taken to place the facility, system, or equipment in a safe, stable condition, to return them to service, or to correct or alleviate the anomalous condition, and the results of</p>			

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<p>those actions</p> <p>11) Cause of the occurrence, including direct and contributing causes and the root cause</p> <p>12) Recommendations about whether further evaluation is required and, if so, before or after returning the facility to operation</p> <p>13) Action taken or planned to correct the problem and the identified cause and to prevent recurrence</p> <p>14) Impact of the occurrence on the environment, health and safety of workers, the public, and on-site and off-site environs (including quantities and types of radioactive materials released)</p> <p>15) Levels and types of contamination, human exposures, and known or projected environmental, safety, and health impacts</p> <p>16) Impact of the occurrence on the affected program and/or project</p> <p>17) Impact of the occurrence on the adequacy of national codes and standards and regulatory requirements</p> <p>18) Lessons learned from the occurrence that could be of importance to other facility operators or that shall be addressed in personnel training or facility procedures</p> <p>19) Any previous similar events at the same facility that are known to the Facility Manager</p> <p>The name and telephone number of a person within the Facility Manager's organization who is knowledgeable about the occurrence</p>			
<p>7.7-7</p> <p>Procedures shall be written and implemented to carry out categorization, notification, and reporting requirements for reportable occurrences.</p>	<p>3.16.3 Incident Investigations</p> <p>Incident investigations involve the identification, categorization, notification, reporting, and processing of information related to incidents, emergency events, and accidents associated with the RPP-WTP. Incident reports are sent to the DOE Occurrence Reporting and Processing System. Although the incident reporting process is usually initiated with operation of a nuclear facility, the process is developed and implemented for the RPP-WTP construction and testing activities in preparation for operation.</p> <p>The incident investigation and reporting procedures, and the training to these procedures, ensure that the RPP-WTP regulator, the DOE Program Office, and RPP-WTP management are kept informed on a timely basis, of events and conditions during construction, testing, and</p>	<p>DOE M 232.1-1A Section 8</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified section of the ISMP (1.3.17) provides additional detail for incident investigation,</p>

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	<p>operational activities that could adversely affect quality assurance, security, environment, operations, or the health and safety of the public and workers. Incident reports are evaluated for a potential noncompliance to a nuclear safety requirement reportable by the requirements of 10 CFR 820 "Procedural Rules for DOE Nuclear Activities."</p> <p>For an incident that indicates a potential inadequacy of previous safety analyses as defined in an approved safety analysis report or that indicates a possible reduction in safety margins as defined in the TSRs, actions are taken to place or maintain the facility in a safe state and a safety evaluation is performed. The completed safety evaluation is submitted to the regulator before removing any operational restrictions initiated in response to the incident.</p> <p>Additional detail on incident investigations is included in ISMP Section 5.6.7, "Investigation of Incidents" and ISAR Section 3.7, "Incident Investigations".</p> <p>5.6.7 Investigation of Incidents</p> <p align="center">SAME AS ABOVE</p>		<p>these requirements remain as RPP-WTP Project commitments that will be implementing with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p>
<p>7.7-8</p> <p>The services of the Environment Safety & Health (ES&H) reporting system, maintained by the Office of Environment, Safety, and Health, shall be used to meet the documentation and distribution requirements of this section.</p>	<p>3.16.3 Incident Investigations</p> <p>Incident investigations involve the identification, categorization, notification, reporting, and processing of information related to incidents, emergency events, and accidents associated with the RPP-WTP. Incident reports are sent to the DOE Occurrence Reporting and Processing System. Although the incident reporting process is usually initiated with operation of a nuclear facility, the process is developed and implemented for the RPP-WTP construction and testing activities in preparation for operation.</p> <p>The incident investigation and reporting procedures, and the training to these procedures, ensure that the RPP-WTP regulator, the DOE Program Office, and RPP-WTP management are kept informed on a timely basis, of events and conditions during construction, testing, and operational activities that could adversely affect quality assurance, security, environment, operations, or the health and safety of the public and workers. Incident reports are evaluated for a potential noncompliance to a nuclear safety requirement reportable by the requirements of 10 CFR 820 "Procedural Rules for DOE Nuclear Activities."</p> <p>For an incident that indicates a potential inadequacy of previous safety analyses as defined in an approved safety analysis report or that indicates a possible reduction in safety margins as defined in the TSRs, actions are taken to place or maintain the facility in a safe state and a safety evaluation is performed. The completed safety evaluation is submitted to the regulator before removing any operational restrictions initiated in response to the incident.</p> <p>Additional detail on incident investigations is included in ISMP Section 5.6.7, "Investigation of Incidents" and ISAR Section 3.7, "Incident Investigations".</p>	<p>DOE M 232.1-1A Sections 5 & 7</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified section of the ISMP (3.16.3) provides additional detail for incident investigation, these requirements remain as RPP-WTP Project commitments that will be implementing with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A will be proceduralized by the RPP-WTP Project.</p>
<p>7.7-9</p> <p>The RPP-WTP contractor shall ensure that subcontractors and suppliers report defective items, materials, and services and shall specify these requirements in applicable procurement documents.</p>	<p>5.2 Control of Subcontractors</p> <p>BNI is responsible for ensuring that all subcontractors work as safely as the BNI employees. BNI's responsibilities include the following:</p> <ol style="list-style-type: none"> 1) Informing the subcontractors of known fire, explosion, or toxic hazards relating to the subcontractor's work and the process 2) Explaining to the subcontractor the applicable provisions of the emergency plan 3) Developing and implementing safe work practices to control the entrance, presence, and exit 	<p>DOE M 232.1-1A Section 5 & 9 Group 7B</p>	<p>DOE M 232.1-1A is a well-proven and established standard used at Hanford Site and throughout the DOE complex for reporting and incident investigation.</p> <p>While the identified section of the ISMP (5.2) provides</p>

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	<p>of subcontractor employees, including their presence in areas of the process covered by the PSM standard</p> <p>4) Periodically evaluating the performance of subcontractors in fulfilling their obligations as stated</p> <p>5) Maintaining an illness and injury log relating to the subcontractor work in the process areas.</p> <p>Each subcontractor's responsibilities include the following:</p> <p>1) Ensuring that subcontractor employees are trained in the work practices necessary to safely perform their assignments</p> <p>2) Ensuring that subcontractor employees are instructed in the known hazards of the process as related to their job assignments, and in the relevant provisions of the emergency management plan</p> <p>3) Documenting that each subcontractor employee has received and understood the training required to work safely at the RPP-WTP</p> <p>4) Ensuring that each subcontractor employee follow the safety rules of the RPP-WTP and the site safe work practices, and advise the contractor of any unique hazards presented or found during the course of the subcontractor's work</p> <p>Project environment, safety, and health (ES&H) requirements are imposed on subcontractors in contracting documents. This includes commitments included in the SRD and ISMP. Subcontractors are required to appoint an ES&H representative who is the interface with the Project team on all ES&H matters.</p> <p>Before starting any work, ES&H personnel meet with the subcontractor's workers to apprise them of the job-specific ES&H requirements. In addition, oversight is provided of all subcontractor safety and compliance activities.</p> <p>The system employed on the Project to track subcontractor work includes procedures with detailed checklists and specific record keeping and reporting requirements. The key elements of this system are subcontractor pre-qualification, worker job-specific training, day-to-day monitoring, and regular reporting to the contractor. These elements are described in the paragraphs that follow.</p> <p>The QAP requires that subcontractors and suppliers providing services and items Important-to-Safety submit their quality plans to the Project QA for review and approval.</p> <p>The QAP describes how the procurement of items and services is controlled to ensure conformance with specified requirements. Audits of suppliers and subcontractors are described in the QAP.</p> <p>Controls are established by the Project to ensure that purchased items and services conform to the procurement documents. These controls include provisions for source evaluation and selection, objective evidence of inspection at the subcontractor's source, examination of items or services upon delivery, and assessments. Verifications of subcontractors' and suppliers' activities during fabrication, inspection, testing, and shipment of materials, equipment, and components are planned and performed with the Quality Assurance organization participation to ensure conformance with the purchase order requirements.</p>		<p>additional detail for the control of subcontractors, the requirements pertaining to safety criterion 7.7-9 are fully covered in DOE M 232.1-1A. The ISMP requirements remain as RPP-WTP Project commitments that will be implementing with the development of the project reporting and incident investigation program. The requirements of DOE M 232.1-1A to ensure that subcontractors and suppliers report defective items, materials, and services will be proceduralized by the RPP-WTP Project.</p>

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	<p>Subcontractors and suppliers develop procedures for the disposition of items, materials, and services that do not meet procurement requirements to ensure that incorrect or defective items, materials, and services are not used in the RPP-WTP and that reporting requirements are satisfied. BNI validates that approved suppliers can continue to provide acceptable items and services based on a documented evaluation of their past performance.</p> <p>Prequalification. Subcontracting procedures contain subcontract language to ensure that BNI subcontractors understand their obligation to comply with the Project ES&H programs and procedures and all applicable federal, state, and local requirements. Subcontractors are also required to submit an extensive ES&H history form documenting their capability of meeting these obligations. Subcontractors are also required to submit their safety and health program for Project review. Before work is carried out, subcontractors are required to validate that their workers have current training for the work activities they are to perform. This training must be documented as quality assurance records.</p> <p>Day-to-day monitoring. The subcontractor’s ES&H performance is measured against their contractual obligations and ES&H performance. This oversight is the responsibility of the project team, which includes ES&H professionals familiar with the subcontractor scope and the specific ES&H project requirements. Instructions for compliance oversight are specified in the BNI subcontracting procedures and policies. These procedures also contain guidance to initiate contract termination if a subcontractor is found to be in default of these contract obligations, including failure to respond to ES&H infractions.</p> <p>Regular reporting. Subcontractors maintain their own records of accidents and illnesses and are responsible for notifying BNI immediately of any lost work day injuries/illnesses, occupational fatalities, OSHA-recordable injuries, hazardous material or radiation exposure, or property damage in excess of \$500 occurring in areas under BNI control. Subcontractors are also responsible for environmental compliance as defined by applicable procedures, regulations, and laws. These submittals are reviewed by ES&H professionals to give BNI an early warning of performance degradation and to allow BNI to take effective, preventative action when necessary.</p> <p>The above approaches are formalized in Project policies, procedures, and instructions. Appropriate training is also provided at all levels including employees, supervisors, and management.</p> <p>To ensure that BNI subcontractors are performing their work safely, both formal and informal safety reviews and audits are performed. Results of these evaluations are transmitted to both Project management and to the affected subcontractors.</p>		