

# **Enforcement Program Manual**

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### REVISION HISTORY

<b>Rev. #</b>	<b>Date</b>	<b>Revision Description</b>
1	12/5/11	Incorporated 10 CFR 830, added roles and responsibilities, clarify process, incorporated screening and NTS reportability criteria and forms
2	1/18/13	Incorporated 10 CFR851 requirements, roles and responsibilities, and updated from August 2012 DOE HSS Enforcement Guidance
3	12/31/16	Updated roles & responsibilities, updated communication process, combined NUC and WSH screening into a single screening form, documents Enforcement Process, and updated new DOE ORPS categories associated with noncompliances.
4	3/1/22	Reflect current process, clarify roles and responsibilities, and align with new revision of DOE Enforcement Coordinator Handbook dated August 2021.

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## 1.0 INTRODUCTION

Lawrence Berkeley National Laboratory (LBNL) has an established a system that is designed to provide assurance that the Laboratory's mission objectives are achieved; its workers, the public, and the environment are protected; its operational, facility and business systems are effectively managed; and the requirements of the UC/DOE contract are met.

The assurance system has been developed to identify and resolve problems and negative performance trends before they become significant issues, to systematically integrate and align work based on risk and performance objectives, and to improve work by incorporating lessons learned and best practices. The assurance system is integrated with other management systems like the Quality Assurance Program and Integrated Safety Management System, and utilizes metrics and other measures to drive efficient and cost effective performance.

As part of its assurance system, LBNL also evaluates the results from its assurance activities to identify noncompliances with federal regulations, including implementing documents' requirements that are designed to flow those requirements into the Laboratory management systems and key institutional processes.

This manual describes the Enforcement Program for the nuclear safety, worker safety and health, and classified information security programs enforced by the U. S. Department of Energy (DOE) under the Price-Anderson Amendment Act (PAAA). The program applies to all LBNL personnel as well as its subcontractors, subtier subcontractors and suppliers who provide services or items. The Office of Institutional Assurance and Integrity (OIAI) and the Environment Health and Safety Division (EHS) provides oversight to ensure compliance with these rules and regulations.

This manual also establishes the process for identifying, evaluating, reporting, tracking, trending and closing noncompliances with DOE nuclear safety, worker safety and health, and security requirements enforceable under the PAAA and its primary implementing regulations: 10 CFR 708<sup>1</sup>, *DOE Contractor Employee Protection Program*; 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*; 10 CFR 824, *Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations*, 10 CFR 830, *Nuclear Safety Management*, 10 CFR 835, *Occupational Radiation Protection*, 10 CFR 850, *Chronic Beryllium Disease Prevention Program*; and 10 CFR 851, *Worker Safety and Health Program*.

No classified work is performed at LBNL, and as such, no work performed is subject to the requirements of 10 CFR 824. Any classified information security issues that might arise would be managed using the general procedures described in this manual.

Records generated as result of complying with this program requirements are Quality Assurance (QA) records and are maintained in accordance with Policy Number 04.02.004.000, *Price Anderson Amendment Act (PAAA)* requirements. These records include, but are not limited to, the following:

- Noncompliance Determination Screening Forms
- Noncompliance Tracking System (NTS) Reportability Determination Forms
- Objective Evidence Used to Support Noncompliance Determinations
- PAAA Log
- PAAA Determination Notifications
- PAAA Performance Analysis Reports

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<sup>1</sup> This compliance manual establishes program requirements related to Part 708 to the extent concerning retaliation against an employee for disclosure of a noncompliance under Parts 820, 824, 830, 835, 850 or 851.

## 2.0 REFERENCES

### REQUIREMENTS

- Atomic Energy Act of 1954, as amended, (AEA)
- Contract 31, Clause I.76 - DEAR 970.5203-1 Management Controls (Jun 2007) (deviation)
- Contract 31, Clause I.83 - DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts (Aug 2009) (Alternate I) (Aug 2009)
- Contract 31, Clause I.126 - DEAR 952.250-70 Nuclear Hazards Indemnity Agreement (Oct 2005)
- 10 CFR 708, *DOE Contractor Employee Protection Program*
- 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*
- 10 CFR 824, *Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations*
- 10 CFR 830, *Nuclear Safety Management*
- 10 CFR 835, *Occupational Radiation Protection*
- 10 CFR 850, *Chronic Beryllium Disease Prevention Program*
- 10 CFR 851, *Worker Safety and Health Program*
- DOE Office of Enforcement and Oversight, *Safety and Security Enforcement Process Overview*, July 2016

### REFERENCE DOCUMENTS

- Policy Number 04.02.004.000, *Price Anderson Amendment Act (PAAA)*
- LBNL/PUB-3111, *Quality Assurance Program Description (QAPD)*
- LBNL/PUB-3851, *Worker Safety and Health Program*
- LBNL/PUB-5519, *Issues Management Program Manual*
- LBNL/PUB-5520, *University of California Contractor Assurance System (CAS) Description*
- LBNL Radiation Protection Program
- Occurrence Reporting and Processing System (ORPS) Reports
- Employee Concerns Documentation
- Protective Services Daily Log Entries

## 3.0 RESPONSIBILITIES

Role	Description of Responsibilities
<b>Laboratory Director or Designee</b>	<ul style="list-style-type: none"> <li>• Appoints the Enforcement Coordinator and alternate(s)</li> <li>• Communicates and reinforces the importance of proactively identifying, reporting and managing issues and noncompliance</li> </ul>
<b>Laboratory Counsel</b>	<ul style="list-style-type: none"> <li>• Advises the University of California National Laboratories (UCNL) Laboratory Director, Laboratory Deputy Directors for Research and Operations, the Office of Institutional Assurance &amp; Integrity (OIAI), Enforcement Coordinator, and other senior management during preparation for and/or in response to a DOE Office of Enterprise Assessments (EA-10) program review, investigation, and/or enforcement actions</li> <li>• Advises the Enforcement Coordinator and other stakeholders regarding interpretation and applicability of requirements, as necessary</li> <li>• Reviews Preliminary Notices of Violation (PNOVs), advises on draft responses, makes recommendations relative to any considerations to deny a PNOV, to appeal a PNOV, or to request that a Compliance Order be rescinded or modified and prepares appeals to Final Notices of Violation (FNOVs) and Compliance Orders, as appropriate</li> </ul>
<b>Office of Institutional Assurance &amp; Integrity (OIAI) Manager or Designee</b>	<ul style="list-style-type: none"> <li>• Provides shared oversight and administration of the Enforcement Program with EHS</li> <li>• Provides management support to, and oversight of, the Enforcement Coordinators</li> <li>• Interfaces with the Enforcement Coordinators and laboratory leadership on the status of the Enforcement Program and externally-reported noncompliances, as necessary.</li> </ul>

	<ul style="list-style-type: none"> <li>• Upon notification from the EA-10 of intent to perform a program review or enforce a Rule, along with EHS, ensures coordination of the Lab's preparation efforts for program reviews, investigations, on-site visits and enforcement conferences</li> </ul>
<p><b>Division Director, Environmental Health &amp; Safety (EHS) or Designee</b></p>	<ul style="list-style-type: none"> <li>• Provides shared oversight and administration of the Enforcement Program with OIAI.</li> <li>• Provides management support to, and oversight of, the Enforcement Coordinators</li> <li>• Interfaces with the Enforcement Coordinators and laboratory leadership on the status of the Enforcement Program and externally-reported noncompliances</li> <li>• Upon notification from the EA-10 of intent to perform a program review or enforce a Rule, along with OIAI, ensures coordination of the Lab's preparation efforts for program reviews, investigations, on-site visits and enforcement conferences</li> </ul>
<p><b>Enforcement Coordinator or Designee</b></p>	<ul style="list-style-type: none"> <li>• Oversees LBNL's compliance with PAAA 10 CFR 708, 10 CFR 820, 10 CFR 824, 10 CFR 830, 10 CFR 835, 10 CFR 850 and 10 CFR 851</li> <li>• Independently reviews and determines if sources of potential noncompliances are reportable, including reviewing documents/records, interviewing Lab or subcontractor staff, and/or observing work processes</li> <li>• Interfaces with EA-10 and the DOE Site Office on the status of the Enforcement Program and noncompliances</li> <li>• Serves as the principal or co-lead for EA-10 visits, program reviews and enforcement actions</li> <li>• Coordinates DOE EA requests for information, onsite and offsite visits, investigations and enforcement conferences</li> <li>• Consults with Laboratory Counsel regarding requirements interpretation and applicability for actual or potential noncompliances, as necessary</li> <li>• Interfaces with Laboratory leadership, Laboratory Counsel, cognizant managers and staff regarding the Enforcement Program and potential and actual noncompliances.</li> <li>• Notifies UCNL, DOE Site Office, Lab leadership, Laboratory Counsel, responsible organizations and other stakeholders, as appropriate, of Noncompliance Tracking System (NTS) reportable noncompliances</li> <li>• Distributes compliance-related communications to affected LBNL organizations and stakeholders</li> <li>• Maintains NTS documentation files</li> <li>• Verifies that NTS-reportable noncompliances are managed in accordance with the Institutional Issues Management Program</li> <li>• Performs assessments periodically to evaluate implementation and effectiveness of the Enforcement Program</li> <li>• Attends internal and external meetings such as the Radiation Safety Committee, DOE Energy Facilities Contractors Group (EFCOG) and EA-10 enforcement workshops and seminars</li> <li>• Provides periodic training and/or outreach, as necessary, to ensure that the line organizations have a working knowledge of the Enforcement Program</li> </ul>
<p><b>Line Management (LBNL and Subcontractor)</b></p>	<ul style="list-style-type: none"> <li>• Notifies the Division Safety Coordinator (DSC), Radiological Control Manager (RCM) and Enforcement Coordinator of potential and actual environmental, health, safety, radiological and/or quality assurance issues and actual and near miss events</li> <li>• Assures that staff performs work consistent with work authorizations, procedures and requirements.</li> <li>• Assures that noncompliances and issues are identified, analyzed and mitigated in accordance with this manual and the Issues Management Program (LBNL/PUB-5519)</li> </ul>

	<ul style="list-style-type: none"> <li>● Ensures that staff, suppliers and subcontractors are aware of 10 CFR 708, 10 CFR 820, 10 CFR 830, 10 CFR 835, 10 CFR 850 and 10 CFR 851 requirements and their responsibility to adhere to them.</li> <li>● Provides support, as necessary, to respond to Enforcement inquiries, Enforcement Investigations, Enforcement Conferences and Enforcement Actions</li> <li>● Provides unfettered access to all information, documentation and personnel, as requested, to the Enforcement Coordinator for potential and actual noncompliances</li> <li>● Provides support, as necessary, and performs causal analyses, CAPs/develop corrective actions, and perform effectiveness reviews of corrective actions taken in response to a noncompliance in accordance with the Issues Management Program (LBNL/PUB-5519)</li> <li>● Provides assessment reports, causal analyses reports, effectiveness review reports, issues and other pertinent data to the Enforcement Coordinator for review for potential noncompliances</li> <li>● Ensures that corrective actions are entered in the Corrective Action Tracking System (CATS) database, and are tracked for timely completion and resolution of the issues.</li> <li>● Ensures adequate preparation and verification of corrective action closure documentation</li> <li>● Ensures objective evidence of corrective action completion is uploaded into the CATS database and is provided to the Enforcement Coordinator</li> <li>● Communicates potential lessons learned via the Laboratory Lessons Learned/Best Practices Database</li> </ul>
<b>Occurrence Reporting &amp; Processing System (ORPS) Coordinator</b>	<ul style="list-style-type: none"> <li>● Notifies the Enforcement Coordinator of ORPS reportable incidents and provides ORPS reports, as requested</li> </ul>
<b>Employee Concerns Manager</b>	<ul style="list-style-type: none"> <li>● Notifies the Enforcement Coordinator of incidents that involve safety, including radiological safety, and worker safety and health issues; and/or retaliation for raising such issues; and provides documentation, as requested</li> </ul>
<b>Security Program Manager or designee</b>	<ul style="list-style-type: none"> <li>● Notifies the Enforcement Coordinator of incidents that involve safety, including radiological safety, and worker safety and health issues; and provides daily log documentation, as requested</li> </ul>
<b>Radiological Control Manager (RCM) or designee</b>	<ul style="list-style-type: none"> <li>● Pre-screens Radiological Concern Acknowledgement Log (RCAL) entries to identify issues that need to be managed in accordance with the Issues Management Program (LBNL/PUB-5519)</li> <li>● Tracks and trends RCALs to identify adverse trends and recurring issues</li> <li>● Notifies the Enforcement Coordinator of Radiation Protection Program issues</li> <li>● Provides documentation as requested by the Enforcement Coordinator</li> <li>● Reviews and approves corrective actions and/or corrective action plans submitted by Cognizant Management in response to issues</li> </ul>
<b>Laboratory Employees</b>	<ul style="list-style-type: none"> <li>● Conscientiously and proactively identify issues, noncompliances and needed improvements</li> <li>● Implement corrective actions to address issues and prevent recurring noncompliances and problems</li> <li>● Share lessons learned and best practices</li> </ul>

## 4.0 PERFORMANCE

### 4.1 IDENTIFICATION OF POTENTIAL NONCOMPLIANCES

## **A. FACT GATHERING**

The Enforcement Coordinator or designee has unfettered access to data sources, including databases, and independently reviews data sources to determine if there are noncompliances that need to be evaluated for external reporting to the DOE Office of Enforcement (OE, OE-10). Details such as names, dates, locations, circumstances, conditions, etc. of the issue must be provided to the Enforcement Coordinator by the line organizations.

Source documents include, but are not limited to:

- Internal and external assessment reports, findings and observations
- Surveillance reports, findings and observations
- Inspection reports and findings, findings and observations
- Nonconformance reports
- Causal Analysis Reports
- CATS database entries
- Effectiveness Review Reports
- RADAR database entries
- Radiological concerns, events or deficiency reports
- Occupational Safety and Health Administration (OSHA) logs
- Operating logs
- Occurrence Processing and Reporting System (ORPS) Reports
- Injury and Illness reports, including CAIRS system reports
- Protective Force Daily Event logs
- Employee Concerns documentation
- Subcontractor observation or deficiency report, analogous to those listed above

The Enforcement Coordinator or designee may request additional information from Division Directors, Division Deputy Directors for Operations, line management, program managers, Subject Matter Experts (SMEs), and others, as needed, and/or interview pertinent personnel and/or observe work processes to ensure all pertinent facts are obtained.

Line management shall ensure that requested information and/or availability of personnel for interviews is provided and made available/accommodated in a timely manner. The Enforcement Coordinator or designee may escalate a request that is not responded to or not responded to within a reasonable time to the Office of Institutional Assurance & Integrity (OIAI) Manager for resolution.

## **B. EVIDENCE REVIEW & NONCOMPLIANCE DETERMINATION**

The Enforcement Coordinator or designee reviews collected information from source documents and/or discussions with line management and/or SMEs; conducts personnel interviews; and/or work process observations, as necessary, to refine all pertinent facts concerning a potential or actual noncompliance. The Enforcement Coordinator or designee may also engage with appropriate line management and/or SMEs prior to finalizing a determination to ensure adequacy and completeness of the facts.

Data and information pertaining to high visibility or high risk incidents is generally reviewed within two to five business days. Other data such as trending data, low risk incidents and assessment reports is generally reviewed after issuance of reports or on specific periodicities (e.g. monthly, quarterly, annually).

Based on the source data and other objective evidence, the Enforcement Coordinator will make the determination that the noncompliance is or is not a Noncompliance Tracking System (NTS) reportable noncompliance. The determination is documented on Attachment A, *NTS Reportability Determination Screening Form*.

The Enforcement Coordinator may meet with Laboratory Counsel for advice regarding determinations. Disagreement on a determination by line management and/or other stakeholders, after performing due diligence in addressing the noncompliance with the Enforcement Coordinator, may result in escalation to the OIAI Manager, in consultation with the Laboratory Counsel, for resolution. Such escalations include the notification to and participation by the Enforcement Coordinator. When objective evidence indicates that a noncompliance may be



externally reportable, the Enforcement Coordinator may also notify the University of California Office of the National Laboratories (UCNL); Laboratory Deputy Director for Operations/Chief Operating Officer (DDO/COO); Laboratory Deputy Director for Research (DDR); Laboratory Counsel; and Environmental, Health and Safety (EHS) Director.

In some instances, noncompliances may be identified that are similar to previously identified noncompliances that have been reported into the DOE NTS database. Such subsequent similar noncompliances may be considered an Extent of Condition of the original externally-reportable noncompliance and may not be identified as a separate externally-reportable noncompliance. Until the original externally-reportable noncompliance is successfully mitigated, it is reasonable to expect similar noncompliances will be identified.

#### **4.2 NTS-REPORTABLE NONCOMPLIANCES**

The Enforcement Coordinator or designee independently determines that an issue or condition represents a noncompliance and that the noncompliance meets the threshold to report it to OE. Once that determination is made, he/she may meet with UCNL, DDO/COO, DDR, Laboratory Counsel, OIAI Manager, ESH Division Director, Cognizant Line Managers, Division leadership and/or DSC of the responsible division, and other stakeholders as necessary to discuss the noncompliance determination and ensure consistent understanding of the noncompliance and the next steps that need to be taken to address it.

In addition to meeting with these functional managers, the Enforcement Coordinator or designee will send a notification to the UCNL, DDO/COO, DDR, Laboratory Counsel, OIAI Manager, ESH Division Director, Cognizant Managers, Division leadership and DSC of the responsible division, BSO Enforcement Coordinator and other stakeholders, as appropriate, of the NTS noncompliance determination.

Once the formal notification is sent to the aforementioned functional managers, the Enforcement Coordinator will enter the noncompliance in the NTS database within 20 calendar days of the notification. Copies of the NTS report are available to functional managers upon request.

#### **4.3 ISSUES MANAGEMENT & VALIDATION**

Line management is responsible for ensuring that all noncompliances, regardless of whether or not the issue is NTS reportable, in accordance with the Institutional Issues Management Program (LBNL/PUB-5519).

For radiological noncompliances, in order to help line management understand what is a noncompliance, the Radiation Control Manager (RCM), Radiation Protection Group (RPG) or the Institutional Issues Management Program Manager will communicate to line management which radiological concerns are associated with a noncompliance so that line management can appropriately ensure that these issues are entered into the Corrective Action Tracking System (CATS) database and are managed through resolution in accordance with LBNL/PUB-5519.

Using Attachment C, *Risk Severity Matrix & Issues Management*, in conjunction with the Enforcement Coordinator or the Institutional Issues Management Program Manager, line management characterizes the risk level associated with the noncompliance(s) so that the appropriate level of causal analysis is performed; a formal Corrective Action Plan (CAP) is developed, if required, and/or corrective actions are documented in the CATS database; and an effectiveness review is performed, if required.

The CATS database is the Institutional repository for all noncompliances (i.e. issues), and line management ensures that all noncompliances, associated corrective actions and objective evidence of corrective action completion are documented in the CATS database.

The CATS database also serves as the official, Institutional source to generate the NTS noncompliance log. The CATS database is engineered to ensure that any corrective action associated with an NTS-reportable noncompliance requires objective evidence of completion to be uploaded into the database in order to complete the corrective action. Additionally, the CATS database is engineered to automatically notify the Enforcement Coordinator of corrective actions that have been completed and issues that have been closed.

The Enforcement Coordinator or designee reviews objective evidence and corrective action completion against NTS noncompliances and/or causes identified in causal analysis reports to validate that the objective evidence adequately addressed the corrective action implementation. If the objective evidence does not adequately demonstrate the corrective action implementation, the Enforcement Coordinator or designee will contact the corrective action responsible individual and/or cognizant line management to identify and ensure resolution of the discrepancies. Once discrepancies are addressed, the Enforcement Coordinator or designee will update the NTS database to reflect current status of the corrective actions.

In some instances, an Effectiveness Review may determine that corrective actions were not effective and sustainable, and may require that supplemental corrective actions must be developed to fully address causes or the Lab may accept the risk and document the risk acceptance in CATS with no further action warranted. In the event that supplemental corrective actions are taken, they must be entered into the CATS database and managed through resolution. The Enforcement Coordinator or designee will update the NTS database to reflect the current status of the corrective actions.

As issues are managed, the Enforcement Coordinator or designee may provide the DOE Site Office or DOE EA-10 with copies of documentation that demonstrate compliance with internal issues management requirements.

#### **4.3 LBNL/BSO PAAA MEETINGS**

As needed, the Enforcement Coordinator or designee may schedule meetings with the DOE Site Office, line management and others on an as-needed basis to support prompt discussion of reportable noncompliances, radiological protection program activities, assurance activities, and other appropriate information.

#### **4.4 TRENDING AND ANALYSIS**

Trending and analysis of all issues, including NTS reportable noncompliances, is performed in accordance with the LBNL/PUB-5519.

**ATTACHMENT A – NTS REPORTABILITY DETERMINATION SCREENING FORM**

<b>Screen #:</b>	<b>Screened by:</b>	<b>Date:</b>
<b>NTS REPORTABILITY CRITERIA</b>		
	<b>Yes</b>	<b>No</b>
<b>A. SEVERY LEVEL I NONCOMPLIANCE WITH PARTS 850 OR 851 (Refer to Part 851, Appendix B, General Statement of Enforcement Policy, Section VI(b)(1))</b> Has the issue/incident reporting criteria been met?		
<b>B. OCCURRENCE REPORT CRITERIA</b> Have ORPS and 10 CFR 830, 835, 850 and/or 851 reporting criteria been met? If "Yes", identify all applicable criteria:		
<b>C. REPETITIVE NONCOMPLIANCES</b> Has the same noncompliance or a closely similar noncompliance continued to occur, indicating the corrective action, including the causal analysis, has not been effective?		
<b>D. PROGRAMMATIC DEFICIENCIES</b> 1. Have several minor, related, but not identical noncompliances occurred, indicating a common breakdown in a program or area of a program that allowed or contributed to the noncompliances occurring?  2. Have multiple control failures within the boundaries of a single event occurred indicating a common breakdown in a program or area of a program?		
<b>E. INTENTIONAL VIOLATION OR MISREPRESENTATION</b> 1. Did the noncompliance occur as a result of a willful intentional act?  2. Did the noncompliance involve misrepresentation (e.g. intentional concealing of facts, falsification or records or reports, or intentional reporting of inaccurate or incomplete information?)		
<b>F. WORKER RETALIATION</b> Has there been a substantiated management reprisal(s) against worker(s) for raising safety issues associated with 851.20(a)(6) or (9) as defined in 10 CFR 708?		
<b>G. MANAGEMENT DISCRETION</b> Has LBNL management determined the noncompliance will be reported into the NTS database?		
<b>CONCLUSION</b>		
<b>Is the noncompliance reportable into the NTS database?</b>		
<b>Justification:</b>		
<b>Potential/Actual Adverse Impact:</b>		
<b>Immediate/ Compensatory Measures:</b>		
<b>Enforcement Coordinator (Printed Name &amp; Signature)</b>		<b>Date</b>



**ATTACHMENT B – NTS REPORTABILITY DETERMINATION SCREENING FORM INSTRUCTIONS**

FIELD	INSTRUCTION
<b>Screening #:</b>	Enter the next sequential number in the PAAA Log, as applicable.
<b>Screened by/ Date:</b>	Enter the name of the person performing the NTS reportability screen and the date the screen was initiated.
<b>Criteria A – G:</b>	Check criteria “Yes” or “No” as they apply to the noncompliance(s) on the NTS Reportability Determination Screening Form. The guidance for Criteria A-G in “Attachment B” is provided as an aid for determining if the noncompliance should be reported into the NTS database.
<b>Is the noncompliance reportable into the NTS database?</b>	Check “Yes” if any of the answers to Criteria A - G are “Yes”. Check “No” if all the answers to Criteria A - G are “No”.
<b>Justification</b>	Enter a brief justification of why the noncompliance is NTS-reportable.
<b>Potential/Actual Adverse Impact</b>	Briefly describe the actual or potential (i.e. the most realistic, worse case) adverse impact of the noncompliance.
<b>Immediate/ Compensatory Measures</b>	Briefly describe any immediate or compensatory measures taken to mitigate the hazard caused by the noncompliance. Describe any hazards that remain at the time of the screen.
<b>Enforcement Coordinator signature block</b>	The Enforcement Coordinator signs and dates the form documenting that the noncompliance is externally reportable.

**ATTACHMENT C – NTS REPORTABILITY DETERMINATION SCREENING FORM INSTRUCTIONS  
 GUIDANCE FOR CRITERIA A-D**

**A. Table III-1 Noncompliances Associated with Occurrences (DOE Order 232.2A)**

Noncompliances Associated with Occurrence Reporting and Processing System (ORPS) Categories		
REPORTING CRITERIA GROUP	SUBGROUP	OCCURRENCE CATEGORY AND SUMMARY DESCRIPTION <sup>1</sup>
1. Operational Emergency	N/A	An Operational Emergency, Alert, Site Area Emergency, or General Emergency as defined in DOE Order 151.1D.
2. Personnel Safety & Health	A. Occupational Injuries	1) Fatality/terminal injury 2) Inpatient hospitalization of ≥ 3 personnel 3) Inpatient hospitalization ≥ 5 days 4) > 3 personnel having Days Away, Restricted, or Transferred (DART) cases 5) Serious occupational injury 6) Personnel exposure > 10X limits Occupational Exposure Limit (OEL) or > Immediately Dangerous to Life and Health (IDLH) 7) Personnel exposure > OEL but < IDLH
	B. Fires	1) Fire within primary confinement/containment 2) Any fire > incipient stage 3) Any fire in a nuclear facility <sup>3</sup>
	D. Explosions	1) Unplanned explosions that disrupts normal operations
	E. Hazardous Energy	1) Unexpected/unintended personal contact 2) Potential exposure to hazardous energy
3. Nuclear Safety Basis	A. TSR Violations	1) Violation of Technical Safety Requirement (TSR)/Operational Safety Requirement (OSR) Safety Limit or other TSR/OSR requirement 3) Violation of Documented Safety Analysis (DSA) Hazard Control
	B. DSA Inadequacies	1) Radiological material inventory exceeding Hazard Category approval 2) Positive Unreviewed Safety Question
	C. Nuclear Criticality Safety	1) Criticality accident 2) No documented controls available to prevent a criticality accident 3) Loss of one or more documented criticality controls
4. Facility Status	A. Safety Structure/ System/Component (SSC) Degradation	SSC performance degradation <sup>4</sup>
	B. Operations	1) Formal shutdown for safety reasons 2) Actuation of Safety Class SSC
5. Environmental	A. Releases	1) Radionuclide release
6. Contamination/ Radiation Control	A. Loss of Control of Radioactive Materials (RAM)	1) Offsite RAM exceeding DOE limits 2) Loss of RAM (>100X 835 App. E)
	B. Spread of Radioactive Contamination	1) Offsite radioactive contamination <sup>5</sup>
	C. Radiation Exposure	1) Exceedance of DOE dose limits 2) Unmonitored exposure 3) Single exposure > thresholds
	D. Personnel Contamination	1) Offsite medical assistance 2) Offsite personnel/clothing contamination 3) Onsite personnel/clothing contamination <sup>6</sup>
7. Nuclear Explosive Safety	N/A	1) Damaged nuclear explosive 2a) Introduction of electrical energy 2b) Safety feature compromise 2c) Inadvertent substitution 2d) Violation of a safety rule
10. Management Concern	N/A	1) Near miss <sup>3</sup>

NOTES:

1. The simple occurrence of an event or discovery of a condition in any of the listed categories is not by itself sufficient to warrant NTS reporting. NTS reporting requires the identification of a 10 C.F.R. Part 830 or 835 (or any other nuclear safety rule) noncompliance in conjunction with the event or discovery. Contractors identifying a significant nuclear safety noncompliance (i.e., one with the potential to cause radiological harm) in association with an event/discovery type or category not listed in the table should evaluate the condition for NTS reportability.
2. These summary descriptions are a brief characterization of the related criteria. Use the full statement of the criteria contained in DOE Order 232.2 to determine NTS reportability of occurrence-related nuclear safety noncompliances.
3. Under the revised DOE Order 232.2A, DOE Program Offices have the authority to determine which Informational Level Reports will be submitted to the ORPS database. Contractors should continue to screen these events for nuclear safety noncompliances and consider them as potentially reportable into NTS.
4. Report noncompliances associated with a degradation of Safety Class SSC preventing satisfactory performance of its design function when required to be operable or in operation.
5. Report noncompliances associated with the offsite spread of contamination where a contamination level exceeds 100 times the applicable value identified in 10 C.F.R. Part 835, Appendix D, Surface Contamination Values.
6. Refer to Chapter IV for more information about these types of noncompliances.

## **ATTACHMENT D - Risk Severity Matrix & Issues Management**

The level of rigor with which Issues Management needs to be performed is determined using a risk-based graded approach commensurate with the significance and impact of the noncompliance in accordance with LBNL/PUB-5519. The Risk Severity Matrix is provided to assist in determining the appropriate rigor of issues management that needs to be applied.

### **Instructions for Determining the Risk Severity Level of a Noncompliance:**

- 1) Cognizant management or designee, in conjunction with the Enforcement Coordinator or Institutional Issues Management Program Manager, use the best available information pertaining to the NTS-reportable issue or incident to determine the applicable classification within each **Impact** category and the **Likelihood** in order to properly characterize the risk of the issue or incident.
- 2) Multiply the "Impact Value" by the "Likelihood Value" to determine the combined **Risk Severity Level** (Impact x Likelihood = Risk Severity Level).
- 3) Based on the Risk Severity Level, execute the appropriate level of issues management (i.e. causal analysis, extent of condition, corrective action, effectiveness review and lessons learned) in accordance with the LBNL/PUB-5519.

*Note:* Management may opt to perform a Root Cause Analysis (RCA) for any NTS-reportable noncompliance that is not already characterized as high risk severity at their discretion.



**ATTACHMENT C (continued) - Risk Severity Matrix & Issues Management**

Impact Value	Impact Level	IMPACT					
		<i>Impact is determined by considering what the activity, service, or issue results in or could result in.</i>					
		Environmental	Injury	Financial	Reputational	Research & Operational Impacts	Compliance
3	High	<ul style="list-style-type: none"> <li>Significant hazard to safety and health of workers, environment or public:                             <ul style="list-style-type: none"> <li>Exposures above regulatory limits</li> <li>Environmental release off site or above regulatory limit</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Significant impact to the safety of LBNL:                             <ul style="list-style-type: none"> <li>Death</li> <li>Serious/ irreversible illness/injury</li> <li>Permanent Disability</li> <li>Hospitalization ≥ 24Hrs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>≥ \$1M property loss or damage</li> <li>≥ \$1M excess costs due to inefficiencies</li> <li>≥ \$1M negative cost impact</li> </ul>	<ul style="list-style-type: none"> <li>Significant negative publicity or public opinion</li> <li>Significant political pressure</li> <li>Significant potential for litigation or civil penalty</li> </ul>	<ul style="list-style-type: none"> <li>Significant impacts on LBNL research activities                             <ul style="list-style-type: none"> <li>Inability to perform research to meet objectives</li> </ul> </li> <li>Significant impacts on LBNL operations                             <ul style="list-style-type: none"> <li>Extended facility shutdown or operational restrictions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Civil penalties or fines levied by external regulatory agencies</li> <li>Significant potential for litigation or criminal action</li> <li>UC loss of contract award year and/or fee reduction</li> <li>Requires immediate notification to external regulatory agencies</li> <li>External regulatory agency investigation</li> <li>Recurring issue as determined by data monitoring and analysis</li> <li>Systematic non-compliance with regulations/contract and risks are analyzed, deemed high, controls in place to keep risks low</li> </ul>
2	Moderate	<ul style="list-style-type: none"> <li>Hazard to the safety and health of workers, public and environment                             <ul style="list-style-type: none"> <li>Exposures near regulatory limits</li> <li>Minor environmental release outside of building but on site</li> <li>Major release within building</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Moderate impact to the safety of LBNL:                             <ul style="list-style-type: none"> <li>Hospitalization &lt;24Hrs.</li> <li>Partial Disability/temporary total disability &gt;3 mos.</li> <li>Restricted or Alternate Duty</li> <li>Reversible illness/injury</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>≥ \$25K to &lt; \$1M property loss or damage</li> <li>≥ \$100K to &lt; \$1M excess costs due to inefficiencies</li> <li>≥ \$100K to &lt; \$1M negative cost impact</li> </ul>	<ul style="list-style-type: none"> <li>DOE HQ Notification</li> <li>Negative publicity or public opinion</li> <li>Some political pressure</li> <li>Some potential for litigation or civil penalty</li> </ul>	<ul style="list-style-type: none"> <li>Some impact to LBNL research activities</li> <li>Some impact to LBNL research operations                             <ul style="list-style-type: none"> <li>Short-term facility shutdown or operational restrictions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>External regulatory agency review</li> <li>Noncompliance with moderate impact to LBNL</li> <li>Adverse trend over an extended period of time</li> </ul>
1	Low	<ul style="list-style-type: none"> <li>Minor hazardous material released within building</li> </ul>	<ul style="list-style-type: none"> <li>Minor or negligible impact to the safety of LBNL:                             <ul style="list-style-type: none"> <li>No hospitalization</li> <li>No or minor illness/injury</li> <li>No restrictions</li> <li>No disability</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>&lt; \$25K property loss or damage</li> <li>&lt; \$100K excess costs due to inefficiencies</li> <li>&lt; \$100K negative cost impact</li> </ul>	<ul style="list-style-type: none"> <li>BSO concerns</li> <li>Lab Management concerns</li> <li>Political pressure</li> <li>Little potential for litigation or civil penalty</li> <li>Little or no impact on perception of LBNL and UC</li> </ul>	<ul style="list-style-type: none"> <li>Minor or negligible impact to LBNL research activities and/or operations</li> </ul>	<ul style="list-style-type: none"> <li>Noncompliance with regulations/contract with minor/negligible impact to LBNL</li> </ul>

**IMPACT DEFINITIONS:**  
 Impact is defined as the magnitude, significance, or severity of an unfavorable effect.

- High Impact: Potential for significant adverse safety incidents, cost, major delay or significant negative institution-wide effect.
- Moderate Impact: Potential for substantive safety consequence or cost, or substantive negative institutional effect.
- Low Impact: Potential for minor safety impact or cost, or minimal negative institutional effect.

Likelihood Value	Likelihood Level	LIKELIHOOD
3	High	<ul style="list-style-type: none"> <li>● Probable or more likely than not that the issue/ event will occur                             <ul style="list-style-type: none"> <li>– Issue/event has occurred multiple times in last 12 months</li> </ul> </li> </ul>
2	Moderate	<ul style="list-style-type: none"> <li>● More than remote but less than probable chance that the issue/event will occur                             <ul style="list-style-type: none"> <li>– Issue/event has happened in last 18-24 months</li> </ul> </li> </ul>
1	Low	<ul style="list-style-type: none"> <li>● Remote chance that the issue/ event will occur                             <ul style="list-style-type: none"> <li>– Issue/event has not occurred in the past</li> </ul> </li> </ul>

### EXAMPLE OF QUANTITATIVE APPROACH

#### How to Calculate Risk Severity

		IMPACT		
		Low (1)	Moderate (2)	High (3)
LIKELIHOOD	High (3)	3	6	9
	Moderate (2)	2	4	6
	Low (1)	1	2	3

**Multiply the Impact Value by the Likelihood Value to determine the combined Risk Severity Level**

- High Risk = Total value 6-9
- Moderate Risk = Total value 3-5
- Low Risk = Total value 1-2

#### Combined Risk Severity Definitions

**High Risk:** high likelihood to occur, near miss or has occurred and results, or could result, in significant injury, loss, damage and/or significantly impacts achievement of mission/business objectives. Requires immediate attention from senior management and/or follows a formal, rigorous process and/or requires the application of formal, rigorous controls.

**Medium Risk:** would occur at some point in time, near miss or has occurred and results, or could result, in substantive injury, loss, damage and/or impacts achievement of mission/business objectives. Requires prompt attention from Division management and/or follows a more formal, rigorous process and/or requires the application of some formal, rigorous controls.

**Low Risk:** is not likely to occur, near miss or has occurred and results, or could result, in nominal injury, loss, damage and/or nominally impacts achievement of mission/business objectives. Requires some attention from line-management, follows less formal or casual process and/or requires the application of less formal, rigorous controls