U.S. Department of Energy
Washington, D.C.

ORDER

DOE O 210.2

Approved: 6-12-06

SUBJECT: DOE CORPORATE OPERATING EXPERIENCE PROGRAM

1. OBJECTIVES.

   a. To institute a Department of Energy (DOE) wide program for the management of operating experience to prevent adverse operating incidents and to expand the sharing of good work practices among DOE sites.

   b. To provide the systematic review, identification, collection, screening, evaluation, and dissemination of operating experience from U.S. and foreign government agencies and industry, professional societies, trade associations, national academies, universities, and DOE and its contractors.

   c. To reinforce the core functions and guiding principles of DOE's Integrated Safety Management System (ISMS) to enhance mission safety and reliability.

   d. To provide mutual integration with the lessons learned requirements in other DOE directives.

2. CANCELLATION. None.

3. APPLICABILITY.

   a. Departmental Elements. Except for exclusions in paragraph 3c, this Order applies to all Departmental elements (Attachment 1 or online at www.directives.doe.gov) and automatically applies to Departmental elements created after it is issued.

      The National Nuclear Security Administration (NNSA) Administrator will assure that NNSA employees and contractors comply with their respective responsibilities under this Order.

   b. DOE Contractors.

      (1) Except for the exclusions in paragraph 3c, the Contractor Requirements Document (CRD), Attachment 2, sets forth requirements of this order that will apply to contracts that include the CRD.

      (2) The CRD must be included in contracts for management or operation of a DOE site or facility with activities that should be covered by DOE's operating experience program.

      The office identified in the Responsibilities paragraph is responsible for notifying the contracting officer of which contracts are affected. Once notified, the contracting officer is responsible for incorporating the CRD into each affected contract.

c. Exclusions.

(1) This Order does not apply to activities conducted under the authority of the Director, Naval Nuclear Propulsion Program, as assigned by Executive Order 12344.

(2) Consistent with Secretarial Delegation Order Number 00-033.00A to the Administrator and Chief Executive Officer, Bonneville Power Administration, (BPA) this Order does not apply to BPA.

(3) This Order does not apply to the following Secretarial Offices:

(a) Departmental Representative to the Defense Nuclear Facilities Safety Board,

(b) Energy Information Administration,

(c) Office of the Chief Financial Officer,

(d) Office of the Chief Information Officer,

(e) Office of Congressional and Intergovernmental Affairs,

(f) Office of Economic Impact and Diversity,

(g) Office of Electricity Delivery and Energy Reliability,

(h) Office of General Counsel,

(i) Office of Hearings and Appeals,

(j) Office of Human Capital Management,

(k) Office of the Inspector General,

(l) Office of Intelligence and Counterintelligence,

(m) Office of Management,

(n) Office of Policy and International Affairs, and

(o) Office of Public Affairs.

4. REQUIREMENTS.

DOE managers and employees are expected to learn from experience (internal and external) in order to prevent adverse operating incidents and to expand the sharing of good work practices. A generalized approach to accomplishing this objective is depicted in Attachment 3.

a. The DOE Corporate Operating Experience Program has the following requirements.

(1) A formal process must be established to evaluate operating experience from DOE and related government or industry programs, technologies and facilities.

(2) Sources of internal and external operating experience must be used to assess trends and safety issues that may have a bearing on the safety and success of DOE missions. Sources include—

(a) DOE contractors;

(b) DOE programs and site offices, including the Naval Reactors Program;

(c) U.S. industry, professional societies, trade associations, national academies, and universities;

(d) other Federal agencies [e.g., the Chemical Safety and Hazard Investigation Board (CSB), National Transportation Safety Board (NTSB), National Aeronautics and Space Administration (NASA); Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA), etc.];

(e) foreign government and foreign industry experience; and

(f) international agencies involved with energy issues [e.g., the International Energy Agency (IEA) and the International Atomic Energy Agency (IAEA)].

(3) Operating experience must be collected, stored, and retrieved through a central clearinghouse that allows ready access to and communication about collected information on a timely, unimpeded basis by all DOE elements. The Corporate Operating Experience Program Lead Office, who is responsible for operating the clearinghouse, must—

(a) ensure that operating experience data are sufficiently comprehensive and of sufficient quality to meet DOE needs and

(b) develop, promulgate, and maintain support systems needed to implement and sustain an effective operating experience program, including—

1 the computerized data systems for environment, safety and health reporting required by DOE O 231.1A, *Environment, Safety and Health Reporting*, dated 6-3-04,

2 the computerized DOE Corporate Lessons Learned Database and related operating experience web pages, and

3 operating experience analytic tools.

(4) Operating experience must be screened daily by each organization's operating experience program, in particular the designated Corporate Operating Experience Program Lead Office, for safety significance, generic technical implications or management considerations. When data suggests a significant near-term safety risk or vulnerability, those issues must be prioritized, communicated, and resolved.

(a) Screening results and insights from operating experience will be communicated first by the DOE site of concern to the DOE Field Element then elevated to NNSA Deputy Administrators or Program Secretarial Officers (PSOs) for further dissemination program-wide. NNSA Deputy Administrators/PSOs will further evaluate the operating experience to determine any significant and emerging programmatic (mission related) issues.

(b) Further screening will be used by the designated Corporate Operating Experience Program Lead Office to determine DOE-wide applicability.

(c) Analyses and evaluations will be conducted by the designated Corporate Operating Experience Program Lead Office to provide DOE management and programs with clear and timely information regarding significant and emerging safety issues with DOE-wide applicability.

(5) The following elements must be incorporated into the operating experience program:

(a) performance indicators and trends,

(b) site-specific issues,

(c) generic technical issues, and

(d) management or institutional issues.

(6) Designated Corporate Operating Experience Program Lead Office feedback communications on identified environment, safety and health operating experience issues with DOE Headquarters and field organizations, contractors, industry and other Federal agencies and the public must be conducted through actionable or informative operating experience documents (listed in order of importance)—

(a) Special Operations Reports (SORs) are issued by the Deputy Secretary of Energy and disseminated through formal correspondence to NNSA and the DOE Under Secretaries for action and further dissemination to the DOE NNSA Deputy Administrators and PSOs, field elements, and contractors. SORs are also posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and posted on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/specialops_reports.html) to facilitate communications. SORs are produced to inform the DOE complex of the most significant events or trends of concern to management. The following requirements must be met in developing an SOR.

1 Senior management must verify that performance expectations delineated in the SOR are met.

2 Working groups formed to develop SORs are led by the Corporate Operating Experience Program Office and include subject matter experts drawn from representatives of Program Secretarial Offices (PSOs), NNSA Deputy Administrators (DAs), DOE field elements, and contractors.

3 SORs must be coordinated by the Corporate Operating Experience Program lead office through the Under Secretaries/central technical authorities for concurrence before being forwarded to the Deputy Secretary for promulgation.

4 SORs can be prepared on the basis of one event (e.g., as a followup to a Type A or Type B accident investigation as defined by DOE O 225.1A, *Accident Investigations*, dated 11-26-97, a significant external event) or upon a collection of like events or trends. Criteria for preparing an SOR are as follows.

a The events being reported had a significant impact on safe facility operations, worker or public safety and health or regulatory compliance.

b To prevent recurrence or to ensure that potential for a similar event is acceptably low, management will determine vulnerabilities and initiate action at the site or at sites that perform similar work.

c The conditions or symptoms can be identified to illustrate what to look for and what actions are expected by management at other sites.

d Trend analysis indicates it is prudent to require management action to reverse an adverse trend.

5 In response to an SOR, DOE field elements, Government–owned/Government-operated (GOGO) Sites, and contractor senior management must submit to their NNSA Deputy Administrator or PSO formal documentation of the results of their assessments, including a decision of applicability or non-applicability, actions taken or planned with completion dates, and a verification of the close-out of actions.

6 DOE PSOs and NNSA Deputy Administrators, through their Under Secretary, must provide to the Deputy Secretary (with an information copy to the Corporate Operating Experience Program Lead Office) a consolidated report of actions taken and affirmation that the expectations outlined in the SOR have been met or will be met by the required date.

(b) Environment, Safety and Health Alerts (SAs), prepared by the Corporate Operating Experience Program lead office, are issued by the Assistant Secretary for Environment, Safety and Health and disseminated by formal correspondence to NNSA Deputy Administrators and the PSOs requesting their action and further dissemination to DOE field elements and contractors. SAs are also posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and posted on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/alerts.html) to facilitate communications. SAs are issued to inform the DOE complex (or affected sites) of potentially significant safety issues (e.g., an immediate conduct of operations problem, suspect/counterfeit parts, or defective items that require immediate action). The following requirements apply.

1 SAs are developed by the Corporate Operating Experience Program lead office. A working group of subject matter experts drawn from PSOs, DOE field elements and contractor staffs will assist as necessary.

2 An SA must include—

a a statement of actions the recipient must take, or, as it pertains to NNSA, that are recommended and

b a method for providing feedback by formal response to the PSO or NNSA Deputy Administrator.

3 The PSO must provide a consolidated report of actions taken or of non-applicability to EH.

4 SA recipients must review conduct of operations for similar problems or potential for purchase or use of reported suspect, counterfeit or defective items and take appropriate action to prevent adverse consequences.

(c) Environment, Safety and Health Bulletins (SBs) are issued by the Assistant Secretary for Environment, Safety and Health and disseminated by formal correspondence to NNSA Deputy Administrators and the PSOs recommending their action and further dissemination to DOE field elements and contractors. SBs are also posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and posted on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/bulletins.html) to facilitate communications. SBs are prepared on an as-needed basis by the Corporate Operating Experience Program lead office when operating experience data shows a trend that warrants senior Headquarters and field management attention.

1 SBs are the communication vehicle when events or operating experience data analysis shows trends that warrant attention but are not of the safety significance level that warrants an SOR or SA.

2 SBs must recommend specific corrective or preventative actions to senior management who will ensure that actions are taken.

3 An SB must request formal response to EH or preparation of an occurrence report for submission to the Occurrence Reporting and Processing System (ORPS).

(d) Environment, Safety and Health Advisories (SAds) are issued by the Corporate Operating Experience Program lead office on an as-needed basis when analysis of operating experience data shows an event(s) or a trend(s) that warrants senior Headquarters and field manager awareness but whose safety significance does not

warrant an SOR, SA, or SB. SAds are disseminated by being posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and by posting on the DOE lessons learned web page hosted by EH. (URL: http://www.eh.doe.gov/paa/safety_advisory.html).

1 A SAd highlights important environment, safety and health issues for senior management attention and potential action.

2 No response to a SAd is required.

(e) Operating Experience Summaries (OESs) are issued by the Corporate Operating Experience Program lead office for a target audience of first-tier supervisors, work planners, and craft personnel as a compilation of DOE-wide occurrence information and lessons learned from which sites could benefit. OESs must be disseminated by posting on the DOE lessons learned web page hosted by EH. (URL: http://www.eh.doe.gov/paa/oesummary/index.html). A limited number of OESs will also be mailed to senior DOE headquarters and field managers.

1 These reports include—

a substantive analysis of reported events,

b causes and contributing factors,

c similar events and corrective actions that describe significant events, or

d important individual DOE activities that provide corporate lessons learned.

2 Recipients are encouraged to evaluate the occurrences with an eye toward taking action to ensure that—

a similar events do not occur, or

b existing program elements reflect best practices.

(f) Just-In-Time Operating Experience Reports (JITs) are issued by the Corporate Operating Experience Program lead office to inform work planners and workers about a specific safety issue related to work they perform. JITs must be disseminated by being posted/pushed to users of the DOE Corporate Lessons Learned Database (URL:

http://www.eh.doe.gov/DOEll/index.asp) and by posting on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/jit.html).

1 JITs present—

a brief examples of problems and mistakes encountered in actual cases, and

b points to consider for avoiding pitfalls.

2 Content, which is generated from review of common (i.e., frequently performed) tasks, provides practical lessons for—

a program managers,

b field representatives,

c work planners,

d first line supervisors, and

e workers.

3 Over time, JITs will become a library of living documents for update when new lessons are learned and practices are added.

(g) Suspect/Counterfeit or Defective Items Data Collection Sheet (DCS) issued by the Corporate Operating Experience Program lead office provide information on defective or suspect/ counterfeit items (S/CIs) with potential impact to DOE operations. DCSs must be disseminated by posting on the DOE Suspect/Counterfeit Items and Defective Items web pages hosted by EH. (URL: http://www.eh.doe.gov/sci). A limited number of DCSs may also be disseminated by Push Mail to a registered users list. .DCSs are developed from review of—

1 occurrence reports,

2 the Government Industry Data Exchange Program (GIDEP),

3 the Institute of Nuclear Power Operations (INPO), and

4 other databases.

(7) NNSA Deputy Administrators/PSOs also develop DOE Lessons Learned to provide feedback communications on identified program/mission-specific operating experience lessons learned with field organizations and contractors. NNSA Deputy Administrator/PSO developed DOE Lessons Learned must contain the basic elements of the DOE Operating Experience Lessons Learned Template provided in Attachment 5, (i.e., title, number, statement of the lessons learned, discussion, analysis, and recommended actions). NNSA Deputy Administrator/PSO issued lessons learned may emulate the format of the Corporate Operating Experience Documents (i.e., SOR, SA, SB, SAd, etc.) described in section 4a(6).

(8) Operating experience records must be maintained according to National Archives and Records Administration (NARA)-approved DOE Record Disposition Schedules.

(9) Lessons learned must be incorporated into—

(a) training,

(b) maintenance and work planning,

(c) operations, and

(d) design and construction.

b. A DOE Corporate Operating Experience Program lead office is designated in this Order and assigned responsibility for program development and oversight, and clearinghouse development and maintenance as shown in Attachment 4.

c. Guidance materials must be developed and maintained, and the Corporate Operating Experience Program lead office will assist DOE elements with the implementation of this Order.

d. DOE operating experience information must be collected and analyzed continuously by each organization's operating experience program, in particular the designated Corporate Operating Experience Program lead office, to identify significant crosscutting issues and trends and detect weak signals across the Department, and to take action to correct the identified weaknesses.

e. External operating experience data must be collected and analyzed by each organization's operating experience program, in particular the designated Corporate Operating Experience Program lead office, to identify significant issues and lessons learned to make available to the DOE complex.

f. DOE federal and contractor organizations must share operating experience lessons learned with the DOE complex through the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp), using the standard format described in Attachment 5.

g. DOE federal and contractor organizations must apply the following criteria when assessing whether to share a lesson learned with other DOE organizations.

(1) Lessons learned developed for any Type A or Type B accidents, as defined by DOE O 225.1A, *Accident Investigations*, dated 11-26-97 must be shared.

(2) Lessons learned must be developed for Significance Category 1 or recurring events, as defined in Section 5.2 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03, and must be shared.

(3) Other operating experience derived from other operating events, e.g., classifiable operational emergencies (i.e., General Emergencies, Site Area Emergencies, or Alert) as defined by DOE O 151.1C, *Comprehensive Emergency Management System*, dated 11-2-05, Significance Category 2, 3 or 4 occurrences, as defined in Section 5.2 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03, Price-Anderson Amendments Act (PAAA) events reported in the Non-Compliance Tracking System (NTS), injuries or illness reported in the Computerized Accident/Illness Reporting System (CAIRS), assessment findings, etc., may provide lessons learned to be shared when the following criteria are met.

(a) The lesson will provide significant, new information.

(b) The experience has direct relevance to other facilities, sites, or programs under the cognizance of a PSO/NNSA Deputy Administrator and is directly relevant to other PSO/NNSA Deputy Administrator's programs.

(c) The information has the potential to be the basis for significant improvements or cost savings.

h. To improve operational safety awareness, information will be gathered by the Corporate Operating Experience Program lead office from daily occurrence summaries, emergency operation center reports, weekly reports, periodic safety management meeting materials, and occurrence trend reports to assess program performance trends and the data will be disseminated DOE-wide.

i. Operating experience data must be shared between DOE sites with similar programs or missions.

j. The DOE Corporate Operating Experience Program must be integrated with—

(1) ISMS (see DOE P 450.4, *Safety Management System Policy*, dated 10-15-96, and 48 CFR 970.5215-3, Integration of Environment, Safety and Health into Work Planning and Execution);

(2) occurrence reporting requirements as defined in DOE O 231.1A, *Environment, Safety and Health Reporting*, dated 6-3-04 and DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03;

(3) the Quality Assurance Program as defined in 10 CFR Part 830, Subpart A;

(4) the contract performance clause defined in 48 CFR 970.5204-86, Conditional Payment of Fee, Profit and Other Incentives; and

(5) lessons learned requirements defined in DOE O 151.1C, *Comprehensive Emergency Management*, dated 11-02-05, DOE O 225.1A, *Accident Investigations*, dated 11-26-97, DOE O 226.1, *Implementation of Department of Energy Oversight Policy*, dated 9-15-05, and DOE O 414.1C, *Quality Assurance*, dated 6-17-05.

5. RESPONSIBILITIES.

a. Deputy Secretary. Promulgates SORs and requires PSOs and NNSA Deputy Administrators (DAs) to conduct formal monitoring of Headquarters and field element implementation.

b. NNSA Administrator, Central Technical Authority (CTA) for the NNSA, Under Secretary for Energy, Science and Environment (ESE), Central Technical Authority for ESE, and Under Secretary for Science.

(1) Periodically discuss DOE- or program-wide and site specific performance and trends related to operational events and performance indicators with their PSOs, NNSA Deputy Administrators, and heads of field elements.

(2) The designated CTAs through the respective Chief of Nuclear Safety/Chief of Defense Nuclear Safety will give particular attention to performance and trends that impact nuclear safety, and track resolution of such trends.

c. Office of the Assistant Secretary for Environment, Safety and Health.

(1) Is designated as the DOE Corporate Operating Experience Program lead office and is responsible for developing and maintaining the central clearinghouse function.

(2) Incorporates implementation of the operating experience program into Office of Environment, Safety and Health organizational responsibilities.

(3) Develops, promulgates and maintains program guidance materials.

(4) Assists DOE elements with the implementation of this Order.

(5) In coordination with the Secretarial Offices and NNSA, interprets requirements of this Order.

(6) Collects and analyzes operating experience information from occurrence reports, accident investigations, and site specific input to identify significant crosscutting issues and trends and detect weak signals across the Department, and brings this information to the attention of senior line management.

(7) Collects and analyzes external operating experience information from other Government agencies, industry organizations or professional groups to identify significant issues and lessons learned applicable to DOE. Establishes formal operating experience exchange mechanisms with external organizations, (e.g., Government Industry Data Exchange Program (GIDEP), NRC, INPO, CSB, etc.) as necessary.

(8) Identifies operating experience and DOE-wide safety issues and determines level of importance and recommends related actions.

(9) To improve corporate operational safety awareness, develops documents for disseminating performance trending and analysis information from daily occurrence summaries, weekly reports, periodic safety management meeting materials, and occurrence trend reports.

(10) Develops the following lessons learned documents:

(a) SORs,

(b) SAs,

(c) SBs,

(d) SAds,

(e) OESs,

(f) lessons learned using the standard DOE lessons learned format, (Attachment 5),

(g) JITs, and

(h) DCSs.

(11) In conjunction with the Chief Information Officer, operates and maintains computer data support systems (e.g., the DOE Corporate Lessons Learned Database) required for the central clearinghouse function.

(12) Ensures that lessons learned from the DOE Corporate Operating Experience Program are incorporated into directives and standards development.

(13) Work with the Procurement Executive to ensure the requirements of this Order relevant to contractors (M&O and/or non-M&O) are established as a contract clause through rulemaking action.

d. NNSA Deputy Administrators, Cognizant Secretarial Officers, Program Secretarial Officers.

(1) Ensure that program office processes include incorporation of lessons learned into training, maintenance and work planning, work processes, operations, directives and standards development, and design and construction.

(2) Designate operating experience program coordinators to execute responsibilities of this Order.

(3) Review quarterly analyses of reportable and non-reportable events submitted by contractors and program field elements in accordance with Section 5.8 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03 to identify operating experience trends and lessons learned.

(4) Provide management and technical/subject matter experts to participate in the development of SORs, SAs or SBs for issues applicable DOE-wide and require monitored implementation.

(5) Review, submit comments and provide concurrence on SORs applicable to PSO/NNSA Deputy Administrator programs back to the DOE Corporate Operating Experience Program lead office before submission to the Deputy Secretary for approval.

(6) Verify implementation for all levels of operating experience reports through line management oversight.

(7) As a part of self-assessments conducted to evaluate organizational performance in Integrated Safety Management (ISM), includes an assessment of the effectiveness of the organization's operating experience program.

(8) Monitor site- and program-specific performance and discuss periodically with Departmental senior management.

(9) Screen and share lessons learned from field elements to ensure that experience gained at one site is shared with other sites with comparable programs or missions.

(10) Develop and promulgate DOE Lessons Learned unique to their programmatic areas of responsibility.

(11) Ensure that lessons learned are developed and disseminated following completion of major program missions (e.g., contractor closeout of a major cleanup site, major decontamination and decommissioning projects, construction).

(12) Recommend issues to be addressed by SORs or SAs.

(13) Participate in the development of and concur in SORs and SAs as requested.

(14) Review formal responses of field elements, GOGOs, and contractors submitted for corporate operating experience documents (i.e., SORs and SAs).

(15) Provide consolidated, formal response to corporate operating experience documents on whether the expectations of the SOR or SA have been met or will be met by the required date.

e. Heads of Field Elements and Contracting Activities.

(1) Ensure that field element processes incorporate lessons learned into training, maintenance and work planning, work processes, operations, and design and construction.

(2) Designate operating experience program coordinators to fulfill the responsibilities assigned by this Order.

(3) Ensure that quarterly analyses of reportable and non-reportable events submitted by contractors and program field elements in accordance with Section 5.8 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03, are reviewed to identify operating experience trends and lessons learned.

(4) Ensure that operating experience reports are implemented by the field element and contractor organizations through line management oversight.

(5) As a part of self-assessments conducted to evaluate organizational performance in Integrated Safety Management (ISM), includes an assessment of the effectiveness of the organization's operating experience program.

(6) Review contractor implementation of local operating experience programs.

(7) Screen contractor-developed operating experience information to ensure operational awareness.

(8) Monitor contractor performance and sharing of lessons learned.

(9) Share contractor performance information with the PSOs/NNSA Deputy Administrators.

(10) Recommend locally developed lessons learned for inclusion in the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp).

(11) Forward lessons learned applicable to specific missions or programs to the appropriate PSO/NNSA Deputy Administrator for consideration.

(12) Ensure that senior contractor management is held accountable for recurrence of significant adverse events.

(13) Ensure that operating experiences and lessons learned from departing contractors are shared with new contractors following awarding of major contracts.

(14) Share operating experience lessons learned with the DOE complex through the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp).

(15) Provide to the appropriate PSO or NNSA Deputy Administrator feedback concerning reviews conducted and actions taken for SOR and SA operating experience documents.

f. Heads of Government–Owned/Government-Operated (GOGO) Sites.

(1) Distribute DOE Corporate and external operating experience to GOGO personnel for review, analysis and routine use.

(2) Provide to the appropriate PSO or NNSA Deputy Administrator implementation feedback concerning reviews conducted and lessons learned for SOR and SA operating experience documents.

(3) Track trends in operating events to identify recurring issues.

(4) Investigate and identify causes of operating events.

(5) Develop, implement, and track actions to correct problems identified by causal analysis and develop lessons learned on the effectiveness of these actions.

(6) Evaluate program performance and the effectiveness of actions implemented from lessons learned.

(7) Share operating experience lessons learned with the DOE complex through the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp).

(8) Assign roles and responsibilities for the operating experience program and identify appropriate operating experience–related training and qualification requirements.

(9) Ensure that local GOGO processes include the incorporation of lessons learned from the DOE Corporate Operating Experience Program and those developed locally into training, maintenance and work planning, work processes, operations, and design and construction.

(10) Designate operating experience program coordinators to fulfill the requirements of this Order.

(11) Ensure that quarterly analyses of reportable and non-reportable events required by paragraph 5.8 of DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information, dated 8-19-03, is reviewed to identify operating experience trends and lessons learned and is forwarded to the appropriate PSO or NNSA Deputy Administrator.

(12) As a part of self-assessments conducted to evaluate organizational performance in Integrated Safety Management (ISM), includes an assessment of the effectiveness of the organization's operating experience program.

g. Sites Not Under the Cognizance of a DOE Field Element. Execute the responsibilities of the Heads of Field Elements and Contracting Activities (paragraph 5.e) and Heads of Government–owned/Government operated (GOGO) sites (paragraph 5f).

h. Operating Experience Program Coordinator.

(1) Develops and manages organization participation in the DOE Corporate Operating Experience Program.

(2) Develop processes, procedures, communication methods, and documentation to implement this participation as needed.

(3) Elevate to the appropriate DOE manager for resolution and direction unresolved issues arising from actions or determinations on operating experience and lessons learned.

(4) Maintain oversight of contractor operating experience program activities (field element operating experience program coordinators ONLY).

(5) With the assistance of line management, ensure that site lessons learned from operating experience applicable to other DOE sites are submitted to the DOE Corporate Operating Experience Program clearinghouse.

(6) Interact with facility personnel and field element management and oversight organizations as necessary and provide information and advice on findings to management.

(7) Follow up on significant actions or events to derive lessons learned.

(8) With the help of subject matter experts, determine applicability and significance of internal and external operating experience identified as possible lessons learned.

(9) Distribute applicable corporate and external operating experience documents to the DOE PSO and field element or GOGO personnel for review, analysis, and routine use.

(10) Participate in screening, dissemination, analysis, and development of lessons learned.

(11) Serve as point-of-contact for the DOE Corporate Operating Experience Program.

(12) Collect information to evaluate program effectiveness and report to management.

(13) Evaluate implementation of the operating experience reporting and lessons learned development processes to ensure compatibility and compliance with requirements of this Order.

i. DOE and NNSA Procurement Executives. Work with the Office of Assistant Secretary for Environment, Safety and Health to ensure the incorporation of the CRD of this Order in the Department of Energy Acquisition Regulation clauses of affected contracts.

j. Contracting Officers. Once notified, ensure the incorporation of the CRD without modification into affected contracts as soon as practicable but no later than 6 months after the effective date of this Order.

6. DEFINITIONS.

a. Actions. Responses to lessons learned. Examples are—

(1) corrective actions in response to occurrence analysis,

(2) preventive actions to limit recurrence of a negative event, or

(3) improvement actions based on good work practices or innovative approaches.

b. Causal Analysis. An evaluation process to determine behaviors, conditions, that adversely impact the likelihood or severity of an adverse consequence or event, factors contributing to and symptoms associated with a negative safety event; or a review to identify root causes and less-than-adequate systemic factors following a safety occurrence or event.

c. Clearinghouse. The central program unit dedicated to development of a cohesive process for coordinating screening management of operating experience information sources and communications.

d. Corporate Operating Experience Documents. The following publications for communicating lessons learned (accessible through the following URL: http://www.eh.doe.gov/ll/oellproducts.html):

(1) Special Operations Report (SOR) issued by the Deputy Secretary to inform the DOE complex of the most significant events or trends of concern to management.

(2) Environment, Safety and Health Alert (SA) issued by the Assistant Secretary for Environment, Safety and Health (EH) to inform the DOE complex or affected sites of a potentially significant safety issue that can adversely affect operations (e.g., an immediate conduct of operations problem, suspect/counterfeit parts or defective items that require immediate action.

(3) Environment, Safety and Health Bulletin (SB) issued by the Assistant Secretary for Environment, Safety and Health (EH) when analysis of operating experience data shows a trend that warrants senior Headquarters and field manager attention.

(4) Environment, Safety and Health Advisory (SAd) issued by the Assistant Secretary for Environment, Safety and Health (EH) on an as-needed basis when analysis of operating experience data shows a trend that warrants senior Headquarters and field manager attention but is of less significance than would merit producing an SOR, SA or SB.

(5) Operating Experience Summary (OES) issued by the Assistant Secretary for Environment, Safety and Health (EH) to a target audience of first-tier supervisors, work planners and craft personnel for distribution of DOE-wide occurrence information and lessons learned from which sites can benefit.

(6) Just-In-Time (JITs) Operating Experience Report issued by the Assistant Secretary for Environment, Safety and Health (EH) to communicate brief examples of problems and mistakes encountered in actual cases and to present points to consider for avoiding similar occurrences; a compilation of lessons learned from review of common (i.e., frequently performed) work activities for an audience that includes program managers, field representatives, work planners, first line supervisors, and workers.

(7) Suspect/Counterfeit or Defective Items Data Collection Sheet (DCS), issued by the Assistant Secretary for Environment, Safety and Health (EH) to provide information on suspect/counterfeit items (S/CIs) and defective items with potential impact to DOE operations. DCSs are developed from a review of occurrence reports, the Government Industry Data Exchange Program (GIDEP), the Institute for Nuclear Power Operations (INPO) and other databases.

e. DOE Corporate Operating Experience Program. A structured process for DOE/contractor line management and operating experience staffs to review, analyze, and identify trends and be held accountable for implementing and, evaluating the effectiveness of lessons learned from operating experience in an effort to prevent recurrence of significant adverse operational events and trends and to improve performance.

f. Generic Technical Issue. A safety concern involving design, construction, operation or analysis of a mechanical, structural, electrical, chemical or electronic system component or structure not unique to any one facility or site but relevant to more than one application within the DOE complex. Resolution requires senior DOE involvement to ensure integrated, balanced consideration safety risks and mission needs of DOE programs and missions.

g. Good Work Practice or Best Practice. A positive example of work processes with potential to be the basis of significant operational improvements or cost savings.

h. Lesson Learned. A good work practice, innovative approach, or negative experience shared to promote positive information or prevent recurrence of negative events.

i. Management/Institutional Issue. A safety issue associated with DOE or contractor policies, procedures or practices related to management of hazardous activities or human performance and organizational interaction. Resolution requires senior DOE involvement and direction to ensure an integrated, balanced approach reflected in DOE regulations, policies, directives, and implementation guidance.

j. Operating Experience. Information that relates to the methods in which work is planned and conducted and an organization's missions are performed. Operating experience provides the basis for knowledge and understanding that

fosters development of lessons learned and improvement of operational performance.

k. Records. All books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an Agency of the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that Agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of the data in them (44 U.S.C. 3301).

l. Subject Matter Expert (SME). An individual with qualifications and experience in a particular field or work process; an individual who by education, training, and/or experience is a recognized expert on a particular subject, topic, or system.

7. REFERENCES. (Note: DOE directives are available online at www.directives.doe.gov/directives/current.html.)

a. DOE O 151.1C, *Comprehensive Emergency Management*, dated 11-02-05.

b. DOE O 200.1, *Information Management Program*, dated 9-30-96.

c. DOE G 225.1A-1, *Implementation Guide for use with DOE O 225.1 Accident Investigations*, dated 11-26-97.

d. DOE O 225.1A, *Accident Investigations*, dated 11-26-97.

e. DOE O 226.1, *Implementation of Department of Energy Oversight Policy*, dated 9-15-05.

f. DOE G 231.1-1, *Occurrence Reporting and Performance Analysis Guide*, dated 8-20-03.

g. DOE G 231.1-2, *Occurrence Reporting Causal Analysis Guide*, dated 8-20-03.

h. DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03.

i. DOE O 231.1A, *Environment, Safety and Health Reporting*, dated 6-3-04.

j. DOE O 243.1, *Records Management Program*, dated 2-3-06.

k. DOE O 414.1C, *Quality Assurance*, dated 6-17-05.

l. DOE G 414.1-3, *Suspect/Counterfeit Items Guide for Use with 10 CFR 830, Subpart A, Quality Assurance Requirements and DOE O 414.1B, Quality Assurance*, dated 11-03-04.

m. DOE P 450.4, *Safety Management System Policy*, dated 10-15-96.

n. Institute for Nuclear Power Operations (INPO) INPO 94-001, Significant Event Evaluation and Information Network (SEE-IN) Program Description.

o. Institute for Nuclear Power Operations (INPO) INPO 97-001, Guidelines for the Use of Operating Experience.

p. Nuclear Regulatory Commission (NRC) NUREG-0737, "Clarification of TMI Action Plan Requirements," Item I.C.5, "Procedures for Feedback of Operating Experience to Plant Staff."

q. Nuclear Regulatory Commission (NRC) NUREG-0933, "A Prioritization of Generic Safety Issues," Task I.E, "Analysis and Dissemination of Operating Experience (Rev. 3)."

r. Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-1, Oversight of Complex, High-Hazard Nuclear Operations, dated 05-21-04.

s. U.S. Department of Energy Implementation Plan to Improve Oversight of Nuclear Operations, Revision 1, dated June 2005.

8. CONTACT. Questions concerning this order should be addressed to the Office of Corporate Performance Assessment, Office of Environment, Safety and Health at 301-903-9878.

BY ORDER OF THE SECRETARY OF ENERGY:

CLAY SELL
Deputy Secretary

DOE ELEMENTS TO WHICH DOE O 210.2 IS APPLICABLE

Office of the Secretary
National Nuclear Security Administration
Office of Civilian Radioactive Waste Management
Office of Energy Efficiency and Renewable Energy
Office of Environment, Safety and Health
Office of Environmental Management
Office of Fossil Energy
Office of Legacy Management
Office of Nuclear Energy, Science and Technology
Office of Science
Office of Security and Safety Performance Assurance
Southeastern Power Administration
Southwestern Power Administration
Western Area Power Administration

CONTRACTOR REQUIREMENTS DOCUMENT
DOE O 210.2, *DOE CORPORATE OPERATING EXPERIENCE PROGRAM*

Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this Contractor Requirements Document (CRD) and flowing down CRD requirements to subcontractors at any tier using a graded approach based on risk and severity to the extent necessary to ensure contractor compliance.

As directed by the contracting officer, the contractor must meet the following requirements.

1. GENERAL REQUIREMENTS.

a. A DOE contractor must establish an operating experience function that develops and evaluates site-specific lessons learned which focus on preventing recurrence of safety or reliability events, and to share good work practices among DOE sites. The contractor must—

(1) share lessons learned with the DOE complex through the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) (see standard format in Appendix A).

b. The contractor must apply the following criteria when assessing lessons learned for submission to the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp).

(1) Lessons learned developed for Type A or Type B accidents (see DOE O 225.1A, *Accident Investigations*, dated 11-26-97) must be submitted.

(2) Lessons learned must be developed and submitted for any significance category 1 or recurring events (See Section 5.2 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03).

(3) Contractor-specific operating experience derived from other operating events, e.g., classifiable operational emergencies (i.e., General Emergencies, Site Area Emergencies, or Alert) (see DOE O 151.1C, *Comprehensive Emergency Management System*, dated 11-2-05), significance category 2, 3 or 4 occurrences (See Section 5.2 of DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, dated 8-19-03), Price-Anderson Amendments Act (PAAA) events reported in the Non-Compliance Tracking System (NTS), injuries or illness reported in the Computerized Accident/Illness Reporting System (CAIRS), assessment findings, etc., also may provide lessons learned to be submitted when the following criteria are met.

(a) The experience provides significant new information.

(b) The experience has direct relevance to other facilities, sites or programs.

(c) The information has potential to be the basis for significant improvements or cost savings.

c. The contractor must –

(1) Screen all DOE Corporate Operating Experience Documents and DOE Lessons Learned (see Appendix B). Also, screen external organization operating experience documents from U.S. and foreign government agencies and industry, professional societies, trade associations, national academies, and universities, as deemed significant and relevant by contractor management, for applicability to contractor operations.

(2) Distribute the applicable corporate and external operating experience documents to personnel for review, analysis, implementation of corrective actions, and routine use.

(3) Provide feedback through the DOE field element to the issuing authority for DOE Corporate Operating Experience Documents (i.e., SORs, SAs, and SBs) when specific implementation of lessons learned or corrective actions and a formal response are required.

(4) Assess contractor operating event trends to identify recurring issues and evaluate the root causes of the recurring issues.

(5) Investigate and identify contractor operating event causes.

(6) Develop, implement, and track actions to correct problems identified in causal analysis of contractor operating experience and develop lessons learned on the successes.

(7) Establish metrics to measure program performance and evaluate the effectiveness of actions implemented from lessons learned.

d. The contractor must maintain operating experience records according to National Archives and Records Administration (NARA)-approved DOE Record Disposition Schedules.

2. SPECIFIC REQUIREMENTS.

a. Provide resources for developing, implementing, and maintaining an operating experience program that is coordinated with the Headquarters Corporate Operating Experience Review Program Office.

b. Assign roles and responsibilities for the operating experience program.

c. Incorporate responsibility for implementation and support of the operating experience program into contractor Roles, Responsibilities, Accountabilities, and Authorities.

d. Include in management control systems (policies and procedures) identification of lessons learned and implemented by organizations involved in identifying and correcting problems, diagnosing issues, or implementing corrective actions.

e. Integrate lessons learned procedures and processes with existing programs such as quality assurance, Integrated Safety Management System (ISMS), and occurrence reporting. Modify onsite control systems as appropriate.

f. Incorporate DOE and contractor lessons learned into operations, training, maintenance and work planning, work processes, and design and construction.

g. As a part of self-assessments conducted to evaluate the contractor's ISMS performance, include an assessment of the effectiveness of the contractor organization's operating experience program. Report the results of this effectiveness review to the DOE Contracting Officer and the DOE Corporate Operating Experience Program lead office.

h. Designate an operating experience program coordinator who can raise operating experience issues to senior management. The coordinator will be responsible for implementing requirements of this CRD and executing the following tasks.

(1) Manage the operating experience program and its participation in the DOE program and develop processes, procedures, communication methods and documentation to implement the program.

(2) Elevate to management for resolution unresolved issues associated with operating experience and lessons learned actions or decision.

(3) Maintain program oversight.

(4) Submit to the DOE Corporate Operating Experience Program lessons learned that are applicable to other DOE sites.

(5) With assistance from subject matter experts, assess the applicability and significance of internal and external operating experiences identified as potential lessons learned.

(6) Distribute internal, DOE and external operating experience data to personnel for review, analysis, and routine use.

(7) Participate in the screening, dissemination, analysis, and development of lessons learned.

(8) Serve as contractor point-of-contact for the DOE Corporate Operating Experience Program.

(9) Collect and report to management information on program effectiveness.

(10) Evaluate implementation of the operating experience reporting and lessons learned development processes according to requirements of this CRD.

APPENDIX A TO THE CONTRACTOR REQUIREMENTS DOCUMENT

DOE OPERATING EXPERIENCE PROGRAM LESSONS LEARNED TEMPLATE

Title:_____

Identifier:_____

Originator:_____

Date:_____

Contact:_____

Authorized Derivative Classifier:_____

Reviewing Official:_____

Statement of the Lesson Learned from Operating Experience:_____

Discussion of Activities:_____

Analysis (may be incorporated into the discussion):_____

Recommended Actions:_____

Estimated Savings/Cost Avoidance (if applicable):_____

Priority Descriptor:_____

Work/Functions:_____

User-Defined Category:_____

Hazards:_____

ISM Core Functions:_____

Keywords:_____

References:_____

LESSONS LEARNED TEMPLATE—FIELD DESCRIPTIONS

Title:	Title of the operating experience document.
Identifier:	Unique identification number to assist in referencing a lesson learned that includes calendar year, operations office identifier, organization or field/area office/contractor identifier, and a sequential number (e.g., 1995-CH-BNL-0019; 1995-ID-LITCO-0118)
Originator:	Name of the originating organization or contractor.
Date:	Date the operating experience document was issued.
Contact:	Name and phone number of individual to contact for additional information.
Derivative Classifier:	Name of individual who determined that the lesson learned does not contain classified information. (Not required for lessons submitted by unclassified facilities.)
Name of Reviewing Official:	Name of reviewing official who determined that the lesson learned did not contain unclassified controlled nuclear information (UCNI). (Not required for facilities that have no UCNI.)
Statement of the Lessons Learned from the Operating Experience:	Lessons learned statements are executive summaries that focus on the knowledge gained from the operational experience. Sufficient detail should be provided to allow a reader to understand what the problem is, how it was identified, and what steps have been or will be taken to correct the problem and prevent a recurrence. Information regarding the consequences, actual or worst case, associated with the event should also be provided to allow recipients to take a graded approach to applying the lessons learned.
Discussion of Activities:	This section should be as brief as possible and focused on the facts that resulted in the initiation of the operating experience evaluation. Provide situation-specific details that establish the context of the event. Avoid organizational, personnel, and facility description details that merely locate the event in time and space.
Analysis:	Results of any analysis that was performed, if available.
Recommended Actions :	Includes a description of management approved actions that were taken or will be taken to promote implementation of work enhancements or to prevent the recurrence of undesirable events. This field should focus on actionable recommendations (i.e., the change resulting from the lesson) rather than reminders. Additionally, this field can include a description of activities the event/lessons learned may impact other than the event during which it was identified.
Estimated Savings/Cost Avoidance:	If the lesson learned is implemented, an estimate of the savings from the application of a good work practice or the costs avoided from the prevention of a similar event
Priority Descriptor:	A descriptive code that assigns a level of significance to the lesson. Options include Red/Urgent, Yellow/Caution, Blue/Information, and Green/Good Work Practice.
Work/Functions:	The work or functions to which the lesson applies. Enter all that apply. See listing.
User-Defined Category:	Space for organizations to include categories for internal use.
Hazards:	Hazards this lesson applies to or that were present in the original situation. See listing.
ISM Core Functions:	Identifies the core function or functions in which a failure occurred that contributed to the event and/or the core functions impacted by the recommended actions. See listing.

CATEGORIES OF LESSONS LEARNED FROM OPERATING EXPERIENCE

These bin categories are intended to help lesson authors assign specific searchable subjects to their lessons so users can find information focused on their needs. The three sets of bins (Work/Function, Hazard, and ISM Core Function) provide several avenues for zeroing in on applicable lessons. Some of these bins are narrow (Hoisting and Rigging, Mechanical Injury) and some are broader conceptual areas (Authorization Basis, Energy Conservation, Environmental Release). This division is meant to help work planners looking for specific items, to help foremen looking for training anecdotes, and to help managers looking for big-picture lessons. The Work/Function and Hazard bins are open for further improvement and extension.

Lessons Learned Hazards

Confined Space
Electrical/NEC
Elevated Work/Falling Objects
Environmental Release
Ergonomics/Lifting
Excavation and Trenching
Fire/Smoke/NFPA
Firearms and Explosives
Lasers
Natural Phenomena
Other

Personal Injury/ExposureAirborne Materials
- Ambient Temperature Extremes
- Asbestos
- Beryllium
- Hazardous Material (General)
- Infectious Agents
- Mechanical Injury (Striking/Crushing)
- Noise

Other

Personal Injury/Exposure (cont'd)
- Radiation/Contamination
- Slips and Tripping
- Toxic Material

Plants/Animals/Insects
Power Tools
Pressurized Systems
Radiological Release
Suspect/Counterfeit or Defective Items
Traffic
Weather Related
Not Identified

ISM Core Functions

Define Work
Analyze Hazards and Risks
Develop/Implement Controls
Perform Work
Feedback and Improvement

Work/Function

Alternate Fuels
Authorization Basis
Business and Support Services
Chemical Management
Conduct of Operations
- General
- Configuration Management
- Lockout/Tagout
- Procedure Development
- Procedure Adherence
- Work Planning
- Work Control

Construction
Contract Administration
Criticality
Decontamination and Decommissioning
Demolition
Driving
Emergency Management
Energy Conservation
Engineering and Design
- Nuclear
- Non-Nuclear

Environmental Protection
- General
- Environmental Sampling
- Releases
- RCRA Management

Underground Storage Tanks
- NEPA Management
- TSCA Management

Environmental Restoration
Excavation

Work/Function (continued)

Excess Property and Equipment Management
Fire Protection
Hoisting and Rigging
Human Factors
Human Resources
Information Technology
Inspection and Testing
Laboratory Experimentation
Maintenance
- Electrical
- Facility
- HVAC
- Instrumentation and Control
- Mechanical

Other

Power Distribution and Utilities
- Roads and Grounds
- Structural
- Safety Systems
- Heavy Equipment
- Vehicle

Machining and Fabrication
Management
Material
- Handling
- Storage

Nuclear Safety
Occupational Safety and Health
- General

Personnel Protective Equipment

Operations
- Facility
- Heavy Equipment

Other
Packaging and Transportation
Procurement
Protective Force Related
Quality
Radiation Protection
Research and Development
Safeguards and Security
Safety Design
Training and Qualifications
Waste Management
Waste Remediation
Welding, Burning, Hot work
Well Drilling
Not Identified

Priority Descriptors

These priority descriptors were developed by the Lessons Learned Process Improvement Team. The examples are intended to help lessons learned authors assign significance codes to their operating experience lessons. Authors should use their judgment and extend these examples to situations as they arise.

Red/Urgent: A lesson from an actual event with significant adverse outcome

Yellow/Caution: A lesson from an event or condition with potentially adverse outcome

Blue/Information: A fact or discovery of benefit to others

Green/Good Work Practice: A success story; a practice that results in a positive outcome;

Table 1. Priority Descriptors

GENERAL SUBJECT AREA	RED/ URGENT	YELLOW/ CAUTION	BLUE/ INFORMATION	GREEN/ GOOD WORK PRACTICE
Public Safety	Event related to site operation that has affected public safety and health or threatened public safety and health	Potential event related to site operation which may have affected public safety and health	Information to protect public safety and health including, but not limited to, cumulative findings from trending	Action, activity, or practice which improves public safety and health
Worker Safety	Fatality, near fatality, serious injury, or permanent/ total disability	Conditions which resulted in— ▪ injury ▪ temporary/partial disability or ▪ significant loss of work time or productivity	Information to protect worker health and safety including, but not limited to, cumulative findings from trending	Action, activity, or practice which promotes: safe work practices or healthful work practices
Environmental Protection	Unconfined hazardous release beyond the site boundary. Significant unconfined on-site hazardous release requiring cleanup	Condition which may have resulted in an uncontrolled release to the environment or a moderate on-site hazardous release	Information to protect the environment including: measurable, but minor, hazardous releases or cumulative findings from trending	Action, activity, or practice which: prevents on or off-site environmental degradation or- will limit or reduce on or off-site releases to the environment
Compliance	Violations of Federal or State law with significant penalties	Violations of Federal or State law with minor penalties. Significant non-compliance with the technical requirements of DOE Orders or regulations	Information which may improve compliance performance	Action, activity, or practice which improves the compliance performance of the site

Table 1. Priority Descriptors (continued)

GENERAL SUBJECT AREA	RED/ URGENT	YELLOW/ CAUTION	BLUE/ INFORMATION	GREEN/ GOOD WORK PRACTICE
Management/ Administration	Significant management violations including fraud, abuse, and discrimination	Identified actions reflecting failure to operate within DOE management imperatives	Information which may improve DOE management performance	Action, activity, or practice which improves DOE management performance
Investment and Investment Protection	Significant loss or damage of major equipment, property or facility	Potential for major equipment, property or facility to become— ▪ lost or damaged ▪ degraded ▪ unreliable	Information which may improve— ▪ value ▪ efficiency ▪ cost	Action, activity, or practice which improves— ▪ specifications ▪ reliability ▪ efficiency ▪ credibility
Public Interest	On-site event that is perceived by the public— ▪ to have an effect on public safety and health or ▪ to threaten public safety and health.	A potential site operations event which may have affected the public, excluding safety and health, had the event occurred	Information beneficial to public relations	Action, activity, or practice that promotes benefits to the public

APPENDIX B TO THE CONTRACTORS REQUIREMENTS DOCUMENT

CORPORATE OPERATING EXPERIENCE DOCUMENTS AND DOE LESSONS LEARNED

1. Corporate Operating Experience Documents include the following publications for communicating lessons learned (accessible through the following URL: http://www.eh.doe.gov/ll/oellproducts.html):

   a. Special Operations Report (SOR) issued by the Deputy Secretary of Energy to inform the DOE complex of the most significant events or trends of concern to management. SORs are disseminated through formal correspondence to NNSA and the PSOs for action and further dissemination to DOE field elements and formal submittal to contractors for action. SORs are also posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and posted on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/specialops_reports.html) to facilitate communications.

   b. Environment, Safety and Health Alert (SA) issued by the Assistant Secretary for Environment, Safety and Health (EH) to inform the DOE complex or affected sites of a potentially significant safety issue that can adversely affect operations (e.g., an immediate conduct of operations problem, suspect/counterfeit parts or defective items that require immediate action). SAs are disseminated by formal correspondence from EH to NNSA Deputy Administrators and the PSOs requesting their action and further dissemination to DOE field elements and formal submittal to contractors for action. SAs are also posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and posted on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/alerts.html) to facilitate communications.

   c. Environment, Safety and Health Bulletin (SB) issued by the Assistant Secretary for Environment, Safety and Health (EH) when analysis of operating experience data shows a trend that warrants senior Headquarters, field manager, and contractor attention. SBs are disseminated by formal correspondence to NNSA Deputy Administrators and the PSOs recommending their action and further dissemination to DOE field elements and formal submittal to contractors for action. SBs are also posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and posted on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/bulletins.html) to facilitate communications.

   d. Environment, Safety and Health Advisory (SAd) issued by the Assistant Secretary for Environment, Safety and Health (EH) on an as-needed basis when analysis of operating experience data shows a trend that warrants senior Headquarters, field manager, and contractor attention but is of less significance than would merit producing an SOR, SA or SB. SAds are disseminated by being posted/pushed to

users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and by posting on the DOE lessons learned web page hosted by EH. (URL: http://www.eh.doe.gov/paa/safety_advisory.html).

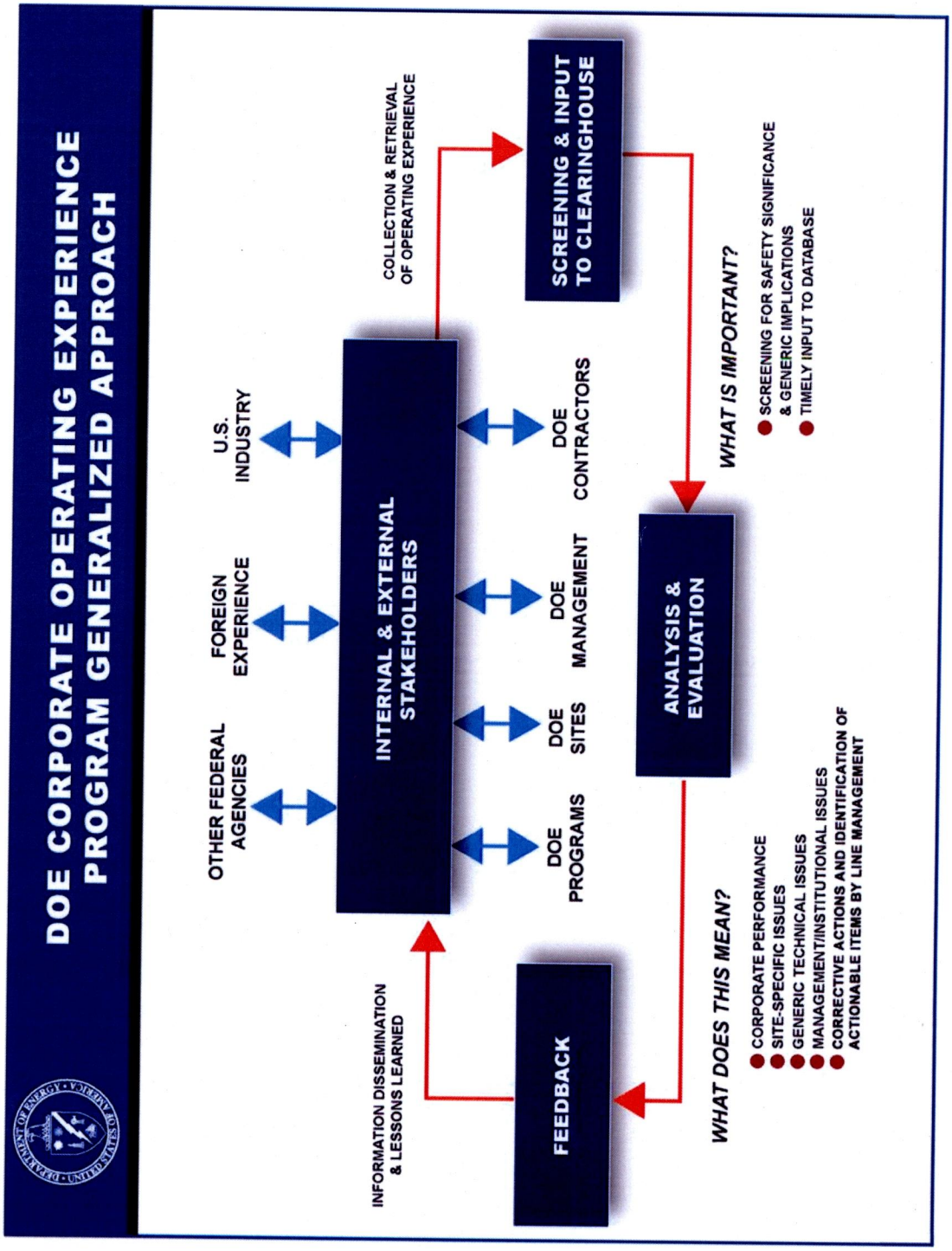
e. Operating Experience Summary (OES) issued biweekly (every 2 weeks) by the Assistant Secretary for Environment, Safety and Health (EH) to a target audience of first-tier supervisors, work planners and craft personnel for distribution of DOE-wide occurrence information and lessons learned from which sites can benefit. OESs are disseminated by posting on the DOE lessons learned web page hosted by EH. (URL: http://www.eh.doe.gov/paa/oesummary/index.html).

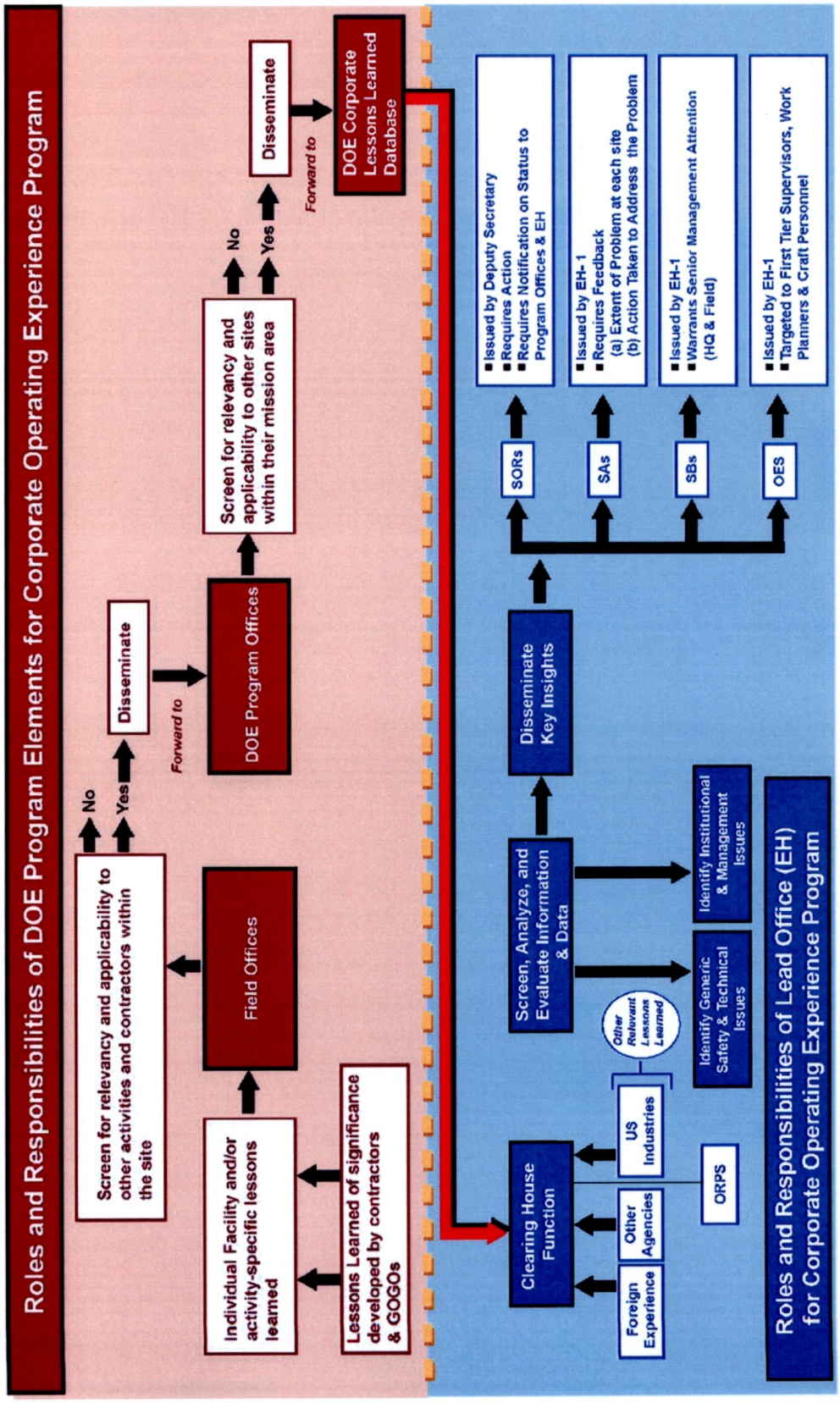
f. Just-In-Time (JITs) Operating Experience Report issued by the Assistant Secretary for Environment, Safety and Health (EH) to communicate brief examples of problems and mistakes encountered in actual cases and to present points to consider for avoiding similar occurrences; a compilation of lessons learned from review of common (i.e., frequently performed) work activities for an audience that includes program managers, field representatives, work planners, first line supervisors, and workers. JITs are disseminated by being posted/pushed to users of the DOE Corporate Lessons Learned Database (URL: http://www.eh.doe.gov/DOEll/index.asp) and by posting on the DOE lessons learned web page hosted by EH (URL: http://www.eh.doe.gov/paa/jit.html).

g. Suspect/Counterfeit or Defective Items Data Collection Sheet (DCS), issued by the Assistant Secretary for Environment, Safety and Health (EH) to provide information on suspect/counterfeit items (S/CIs) and defective items with potential impact to DOE operations. DCSs are developed from a review of occurrence reports, the Government Industry Data Exchange Program (GIDEP), the Institute for Nuclear Power Operations (INPO) and other databases. DCSs are disseminated by posting on the DOE Suspect/Counterfeit Items and Defective Items web pages hosted by EH. (URL: http://www.eh.doe.gov/sci). A limited number of DCSs may also disseminated by Push Mail to a registered users list.

2. DOE Lessons Learned consist of lessons learned originating from other DOE and contractor organizations posted to the DOE Corporate Lessons Learned Database. (URL: http://www.eh.doe.gov/DOEll/index.asp).

3. NNSA/PSO Originated DOE Lessons Learned include NNSA/PSO feedback communications on identified program/mission-specific operating experience lessons learned with field organizations and contractors that contain the basic elements of the DOE Operating Experience Lessons Learned Template provided in Appendix A, (i.e., title, number, statement of the lessons learned, discussion, analysis, and recommended actions). NNSA/PSO issued lessons learned may emulate the format of the SOR, SA, SB, SAd, etc. described above.


DOE CORPORATE OPERATING EXPERIENCE
PROGRAM GENERALIZED APPROACH
OTHER FEDERAL AGENCIES
FOREIGN EXPERIENCE
U.S. INDUSTRY
INTERNAL & EXTERNAL STAKEHOLDERS
DOE PROGRAMS
DOE SITES
DOE MANAGEMENT
DOE CONTRACTORS
COLLECTION & RETRIEVAL OF OPERATING EXPERIENCE
SCREENING & INPUT TO CLEARINGHOUSE
WHAT IS IMPORTANT?
SCREENING FOR SAFETY SIGNIFICANCE & GENERIC IMPLICATIONS
TIMELY INPUT TO DATABASE
ANALYSIS & EVALUATION
WHAT DOES THIS MEAN?
CORPORATE PERFORMANCE
SITE-SPECIFIC ISSUES
GENERIC TECHNICAL ISSUES
MANAGEMENT/INSTITUTIONAL ISSUES
CORRECTIVE ACTIONS AND IDENTIFICATION OF ACTIONABLE ITEMS BY LINE MANAGEMENT
FEEDBACK
INFORMATION DISSEMINATION & LESSONS LEARNED


Roles and Responsibilities of DOE Program Elements for Corporate Operating Experience Program
Screen for relevancy and applicability to other activities and contractors within the site
No
Yes
Disseminate
Forward to
DOE Program Offices
Screen for relevancy and applicability to other sites within their mission area
No
Yes
Disseminate
Forward to
DOE Corporate Lessons Learned Database
Individual Facility and/or activity-specific lessons learned
Field Offices
Lessons Learned of significance developed by contractors & GOGOs
Clearing House Function
Foreign Experience
Other Agencies
US Industries
ORPS
Other Relevant Lessons Learned
Screen, Analyze, and Evaluate Information & Data
Identify Generic Safety & Technical Issues
Identify Institutional & Management Issues
Disseminate Key Insights
SORs
SAs
SBs
OES
Issued by Deputy Secretary
Requires Action
Requires Notification on Status to Program Offices & EH
Issued by EH- 1
Requires Feedback
(a) Extent of Problem at each site
(b) Action Taken to Address the Problem
Issued by EH-1
Warrants Senior Management Attention (HQ & Field)
Issued by EH-1
Targeted to First Tier Supervisors, Work Planners & Craft Personnel
Roles and Responsibilities of Lead Office (EH) for Corporate Operating Experience Program

DOE OPERATING EXPERIENCE PROGRAM LESSONS LEARNED TEMPLATE

Title:_____

Identifier:_____

Originator:_____

Date:_____

Contact:_____

Authorized Derivative Classifier:_____

Reviewing Official:_____

Statement of the Lesson Learned from Operating Experience:_____

Discussion of Activities:_____

Analysis (may be incorporated into the discussion):_____

Recommended Actions:_____

Estimated Savings/Cost Avoidance (if applicable):_____

Priority Descriptor:_____

Work/Functions:_____

User-Defined Category:_____

Hazards:_____

ISM Core Functions:_____

Keywords:_____

References:_____

LESSONS LEARNED TEMPLATE—FIELD DESCRIPTIONS

Title:	Title of the operating experience document.
Identifier:	Unique identification number to assist in referencing a lesson learned that includes calendar year, operations office identifier, organization or field/area office/contractor identifier, and a sequential number (e.g., 1995-CH-BNL-0019; 1995-ID-LITCO-0118)
Originator:	Name of the originating organization or contractor.
Date:	Date the operating experience document was issued.
Contact:	Name and phone number of individual to contact for additional information.
Derivative Classifier:	Name of individual who determined that the lesson learned does not contain classified information. (Not required for lessons submitted by unclassified facilities.)
Name of Reviewing Official:	Name of reviewing official who determined that the lesson learned did not contain unclassified controlled nuclear information (UCNI). (Not required for facilities that have no UCNI.)
Statement of the Lessons Learned from the Operating Experience:	Lessons learned statements are executive summaries that focus on the knowledge gained from the operational experience. Sufficient detail should be provided to allow a reader to understand what the problem is, how it was identified, and what steps have been or will be taken to correct the problem and prevent a recurrence. Information regarding the consequences, actual or worst case, associated with the event should also be provided to allow recipients to take a graded approach to applying the lessons learned.
Discussion of Activities:	This section should be as brief as possible and focused on the facts that resulted in the initiation of the operating experience evaluation. Provide situation-specific details that establish the context of the event. Avoid organizational, personnel, and facility description details that merely locate the event in time and space.
Analysis:	Results of any analysis that was performed, if available.
Recommended Actions :	Includes a description of management approved actions that were taken or will be taken to promote implementation of work enhancements or to prevent the recurrence of undesirable events. This field should focus on actionable recommendations (i.e., the change resulting from the lesson) rather than reminders. Additionally, this field can include a description of activities the event/lessons learned may impact other than the event during which it was identified.
Estimated Savings/Cost Avoidance:	If the lesson learned is implemented, an estimate of the savings from the application of a good work practice or the costs avoided from the prevention of a similar event.
Priority Descriptor:	A descriptive code that assigns a level of significance to the lesson. Options include Red/Urgent, Yellow/Caution, Blue/Information, Green/Good Work Practice.
Work/Functions:	The work or functions to which the lesson applies. Enter all that apply. See listing.
User-Defined Category:	Space for organizations to include categories for internal use.
Hazards:	Hazards this lesson applies to or that were present in the original situation. See listing.
ISM Core Functions:	Identifies the core function or functions in which a failure occurred that contributed to the event and/or the core functions impacted by the recommended actions. See listing.

CATEGORIES OF LESSONS LEARNED FROM OPERATING EXPERIENCE

These bin categories are intended to help lesson authors assign specific searchable subjects to their lessons so users can find information focused on their needs. The three sets of bins (Work/Function, Hazard, and ISM Core Function) provide several avenues for zeroing in on applicable lessons. Some of these bins are narrow (Hoisting and Rigging, Mechanical Injury) and some are broader conceptual areas (Authorization Basis, Energy Conservation, Environmental Release). This division is meant to help work planners looking for specific items, to help foremen looking for training anecdotes, and to help managers looking for big-picture lessons. The Work/Function and Hazard bins are open for further improvement and extension.

Lessons Learned Hazards

Confined Space
Electrical/NEC
Elevated Work/Falling Objects
Environmental Release
Ergonomics/Lifting
Excavation and Trenching
Fire/Smoke/NFPA
Firearms and Explosives
Lasers
Natural Phenomena
Other

Personal Injury/Exposure
- Airborne Materials
- Ambient Temperature

Extremes
- Asbestos
- Beryllium
- Hazardous Material (General)
- Infectious Agents
- Mechanical Injury

(Striking/Crushing)
- Noise

Other

Personal Injury/Exposure (cont'd)
- Radiation/Contamination
- Slips and Tripping
- Toxic Material

Plants/Animals/Insects
Power Tools
Pressurized Systems
Radiological Release
Suspect/Counterfeit or Defective Items
Traffic
Weather Related
Not Identified

ISM Core Functions

Define Work
Analyze Hazards and Risks
Develop/Implement Controls
Perform Work
Feedback and Improvement

Work/Function

Alternate Fuels
Authorization Basis
Business and Support Services
Chemical Management
Conduct of Operations
- General
- Configuration Management
- Lockout/Tagout
- Procedure Development
- Procedure Adherence
- Work Planning
- Work Control

Construction
Contract Administration
Criticality
Decontamination and Decommissioning
Demolition
Driving
Emergency Management
Energy Conservation
Engineering and Design
- Nuclear
- Non-Nuclear

Environmental Protection
- General
- Environmental Sampling
- Releases
- RCRA Management

Underground Storage Tanks
- NEPA Management
- TSCA Management

Environmental Restoration
Excavation

Work/Function (continued)

Excess Property and Equipment Management
Fire Protection
Hoisting and Rigging
Human Factors
Human Resources
Information Technology
Inspection and Testing
Laboratory Experimentation
Maintenance
- Electrical
- Facility
- HVAC
- Instrumentation and Control
- Mechanical

Other

Power Distribution and Utilities
- Roads and Grounds
- Structural
- Safety Systems
- Heavy Equipment
- Vehicle

Machining and Fabrication
Management
Material
- Handling
- Storage

Nuclear Safety
Occupational Safety and Health
- General

Personnel Protective Equipment

Operations
- Facility
- Heavy Equipment

Other
Packaging and Transportation
Procurement
Protective Force Related
Quality
Radiation Protection
Research and Development
Safeguards and Security
Safety Design
Training and Qualifications
Waste Management
Waste Remediation
Welding, Burning, Hot work
Well Drilling
Not Identified

Priority Descriptors

These priority descriptors were developed by the Lessons Learned Process Improvement Team. The examples are intended to help lessons learned authors assign significance codes to their operating experience lessons. Authors should use their judgment and extend these examples to situations as they arise.

Red/Urgent: A lesson from an actual event with significant adverse outcome

Yellow/Caution: A lesson from an event or condition with potentially adverse outcome

Blue/Information: A fact or discovery of benefit to others

Green/Good Work Practice: A success story; a practice that results in a positive outcome

Table 1. Priority Descriptors

GENERAL SUBJECT AREA	RED/ URGENT	YELLOW/ CAUTION	BLUE/ INFORMATION	GREEN/ GOOD WORK PRACTICE
Public Safety	Event related to site operation that has affected public safety and health or threatened public safety and health	Potential event related to site operation which may have affected public safety and health	Information to protect public safety and health including, but not limited to, cumulative findings from trending	Action, activity, or practice which improves public safety and health
Worker Safety	Fatality, near fatality, serious injury, or permanent/ total disability	Conditions which resulted in ▪ injury ▪ temporary/ partial disability or ▪ significant loss of work time or productivity	Information to protect worker health and safety including, but not limited to, cumulative findings from trending	Action, activity, or practice which promotes: safe work practices or healthful work practices
Environmental Protection	Unconfined hazardous release beyond the site boundary. Significant unconfined on-site hazardous release requiring cleanup	Condition which may have resulted in an uncontrolled release to the environment or a moderate on-site hazardous release	Information to protect the environment including: measurable, but minor, hazardous releases or cumulative findings from trending	Action, activity, or practice which: prevents on or off-site environmental degradation or will limit or reduce on or off-site releases to the environment
Compliance	Violations of Federal or State law with significant penalties	Violations of Federal or State law with minor penalties. Significant non-compliance with the technical requirements of DOE Orders or regulations	Information which may improve compliance performance	Action, activity, or practice which improves the compliance performance of the site

Table 1. Priority Descriptors (continued)

GENERAL SUBJECT AREA	RED/ URGENT	YELLOW/ CAUTION	BLUE/ INFORMATION	GREEN/ GOOD WORK PRACTICE
Management/ Administration	Significant management violations including fraud, abuse, and discrimination	Identified actions reflecting failure to operate within DOE management imperatives	Information which may improve DOE management performance	Action, activity, or practice which improves DOE management performance
Investment and Investment Protection	Significant loss or damage of major equipment, property or facility	Potential for major equipment, property or facility to become— ▪ lost or damaged ▪ degraded ▪ unreliable	Information which may improve— ▪ value ▪ efficiency ▪ cost	Action, activity, or practice which improves— ▪ specifications, reliability ▪ efficiency ▪ credibility
Public Interest	On-site event that is perceived by the public to— ▪ have an effect on public safety and health or ▪ threaten public safety and health.	A potential site operations event which may have affected the public, excluding safety and health, had the event occurred	Information beneficial to public relations	Action, activity, or practice that promotes benefits to the public