



Safety Culture Improvement Panel

**U.S. Department of Energy
Safety Culture Improvement Panel**

Safety Culture and Contractual Language

Produced by:

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FORWARD

This report contains the results of the Contract Language Working Group assessment of safety culture provisions in selected U.S. Department of Energy (DOE) site contracts. The intent is to determine how these provisions can and do affect the safety culture in which the contracted work is performed across the DOE and National Nuclear Security Administration complex.

This assessment was tasked by the Safety Culture Improvement Panel and conducted by highly experienced DOE professionals and managers that form the Contract Language Working Group. This is part of DOE efforts to conduct safety culture assessments at large DOE nuclear projects, as directed by the Secretary of Energy in the Department's implementation plan for Defense Nuclear Facilities Safety Board Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant (WTP)*.

The Contract Language Working Group

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TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS	3
FORWARD.....	2
EXECUTIVE SUMMARY.....	4
BACKGROUND	5
Safety Culture Improvement Panel	5
Overview of Safety Culture Improvement Panel Contract Language Working Group.....	5
Technical Approach	5
Documentation	6
RESULTS OF REVIEW	8
Observations.....	8
Opportunities for Improvement.....	8
RECOMMENDATIONS	10

ABBREVIATIONS AND ACRONYMS

CLWG	Contract Language Working Group
DOE	U.S. Department of Energy
ISMS	Integrated Safety Management System
NNSA	National Nuclear Security Administration
RFP	request for proposal
SCIP	Safety Culture Improvement Panel

EXECUTIVE SUMMARY

This report describes the results of the Contract Language Working Group (CLWG) assessment of the existing safety provisions in selected current U.S. Department of Energy (DOE) site contracts, at the request of the Department's Safety Culture Improvement Panel (SCIP).

The primary objective of the assessment was to examine information in current DOE site contracts regarding the effectiveness of their safety provisions at driving (or, "conducive to supporting") a positive safety culture. SCIP instructed the CLWG to examine a limited number of existing contracts at sites under the purview of organizations represented by SCIP core members. Hence, the CLWG's examination included the following sites and associated contracts and/or request for proposal (RFP):

- Idaho Cleanup Project RFP No. DE-SOL-0007097
- Idaho Cleanup, Contract No. DE-AC07-05ID14516
- Los Alamos National Laboratory, Contract No. DE-AC52-06NA25396
- Tank Operations - Hanford Site, Contact No. DE-AC27-08RV14800
- Richland Plateau Remediation, Contract No. DE-AC06-08RL14788
- Savannah River Site, Contract No. DE-AC09-08SR22470
- Savannah River Site Nuclear Remediation, Contract No. DE-AC09-09SR22505
- Uranium Processing Facility - Y-12 Complex, Contract No. DE-NA-0001942.

The CLWG found that although there were similar safety culture clauses and/or requirements in the above contracts, not all contracts were consistent in their content. All contracts include DEAR 970.5223-1, "Integration of environment, safety, and health into work planning and execution," for an Integrated Safety Management System. However, most of the contracts did not explicitly include a specific safety culture clause or reference DOE G 450.4-1C, *Integrated Safety Management System Guide*, which includes specific expectations on safety culture. Some contracts list the DOE orders requiring an employee concerns program, DOE O 442.1A, *Department of Energy Employee Concerns Program* and/or DOE M 442.1-1, *Differing Professional Opinions Manual for Technical Issues Involving Environment, Safety, and Health*, which are both important for encouraging employees to raise concerns. The Idaho Cleanup Project RFP is unique in that it includes a specific provision for a positive safety culture (see Table 1 for details).

Based on the above findings, the CLWG recommends (1) establishing consistency in the contractual language across all DOE sites contractors; (2) ensuring consistent application and interpretation of orders and guidance within the complex; and (3) assessing the effectiveness of the current performance measure in advancing safety culture.

BACKGROUND

This report describes the results of the Contract Language Working Group (CLWG) assessment of the existing safety provisions in selected current U.S. Department of Energy (DOE) site contracts, at the request of the Department's Safety Culture Improvement Panel (SCIP).

Safety Culture Improvement Panel

The purpose of the DOE's SCIP was established as a permanent, high-level organization within the DOE devoted to promoting a positive safety culture; to provide cross-organizational leadership focused on continuous safety culture improvement; and to create an ongoing forum for the exchange of information and ideas to establish, monitor, and sustain measures that support a positive safety culture.

Overview of Safety Culture Improvement Panel Contract Language Working Group

The SCIP CLWG was formed to review the contract language of selected current contracts to determine how their provisions can and do affect the safety culture in which the contracted work is performed. Members of the working group will examine a sample of existing contracts at sites under the purview of organizations represented by SCIP core members. In addition to their own review of these contracts, they will interview, as they deem necessary by federal and contractor contracting officers, federal and contractor managers responsible for achieving the mission managing the work, and workers, including union officials, responsible for accomplishing contracted work.

Technical Approach

The CLWG sampled current contracts from around the DOE complex to examine what contract mechanisms were used to ensure a positive safety culture exists within the projects. The following is a list of sites and associated contracts and/or request for proposal (RFP):

- Idaho Cleanup Project RFP No. DE-SOL-0007097
- Idaho Cleanup, Contract No. DE-AC07-05ID14516
- Los Alamos National Laboratory, Contract No. DE-AC52-06NA25396
- Tank Operations - Hanford Site, Contract No. DE-AC27-08RV14800
- Richland Plateau Remediation, Contract No. DE-AC06-08RL14788
- Savannah River Site, Contract No. DE-AC09-08SR22470
- Savannah River Site Nuclear Remediation, Contract No. DE-AC09-09SR22505
- Uranium Processing Facility - Y-12 Complex, Contract No. DE-NA-0001942.

The CLWG examined the contracts for the following elements:

- Any contract clause found to be an impediment to sustaining a sound safety culture
- Any contract clause that promotes or has the potential to successfully promote a sound safety culture

- Any clauses that promote a positive safety culture and are appropriate as a model to include in other contracts too
- Any other relevant findings.

Documentation

The following is a list of contracts (with brief description on each contract) reviewed by CLWG members for the assessment:

- Idaho Cleanup Project Site RFP, No. DE-SOL-0007097: The Idaho Cleanup Project is funded through the DOE's Office of Environmental Management and focuses equally on reducing risks to workers, the public, and the environment and on protecting the Snake River Plain Aquifer, the sole drinking water source for much of eastern Idaho.
- Idaho Cleanup Contract, No. DE-AC07-05ID14516: CH2M-WG Idaho, LLC, is a partnership comprised of CH2MHill and the URS Corporation that directs the Idaho Cleanup Project at the DOE's Idaho Site located 45 miles west of Idaho Falls. The project focuses on early risk reduction and protection of the Snake River Plain Aquifer, and the contractor will be responsible for treatment and disposal of radioactive waste; retrieval, disposal, and other remediation related to buried waste; safe management of spent nuclear fuel; disposition of nuclear materials; disposition of reactor and nonreactor nuclear facilities; environmental remediation activities; and completion of the sodium-bearing waste processing.
- Los Alamos National Laboratory Management and Operations Contract, No. DE-AC52-06NA25396: Under this contract, the contractor manages and operates the facilities and equipment necessary to meet the National Nuclear Security Administration (NNSA) and DOE mission.
- Office of River Protection-Tank Operations - Hanford Site Contract, No. DE-AC27-08RV14800: This includes operations and construction activities necessary to store, retrieve and treat Hanford tank waste, store and dispose of treated waste, and begin to close the tank farm waste management areas to protect the Columbia River.
- Richland Plateau Remediation Contract, No. DE-AC06-08RL14788: This includes waste treatment and disposal, facility and waste site minimum-safe/surveillance and maintenance, Plutonium Finishing Plant closure, operate the Environmental Restoration Disposal Facility, and maintain the 100K Area in a safe and compliant manner.
- Savannah River Site Contract, No. DE-AC09-08SR22470: This covers the management and operation of the contractor in maintaining and operating the Savannah River Site to meet the mission of the Office of Environmental Management, NNSA, and other DOE missions.
- Savannah River Site Remediation Contract, No. DE-AC09-09SR22505: This involves the treatment and disposal of radioactive liquid waste presently stored in 49 underground tanks as well as radioactive liquid waste resulting from planned nuclear material stabilization activities and the deactivation of the major facilities and equipment that compose the radioactive liquid waste-system.

- Y-12 Security Complex-Uranium Processing Facility Contract, DE-NA-0001942: This includes design and construction of a facility to house the enriched uranium processing capabilities necessary to meet the NNSA and DOE mission.

RESULTS OF REVIEW

Table 1 below shows the results of the CLWG contract review and the safety culture elements, which are included in the current contracts and RFP.

Observations

- Although there were similar elements found among the contracts, not all contracts were consistent in their content. This is not in compliance with DOE O 410.1, *Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*.
- All contracts include requirements for an Integrated Safety Management System (ISMS). However, most of the contracts did not include a specific safety culture clause or explicitly reference DOE G 450.4-1C, *Integrated Safety Management System Guide*, which includes specific expectations on safety culture. Some contracts include the ISMS policy and order while others did not.
- Additionally only some contracts list the DOE orders requiring an employee concerns program or differing professional opinion, which are both important for encouraging employees to raise concerns.
- The Idaho Cleanup Project is unique in that the contractual language includes a specific provision for safety culture (see Table 1).
- Core values and behaviors described in DOE G 450.4-1C as inherently present in a strong safety culture coupled with a collective commitment by leaders and individuals are missing, or at least, buried and not emphasized in our current contracts and incentives plans.

Opportunities for Improvement

- A minimum set of DOE directives to be included in the contract's List B could provide consistency among the sites.
- The Idaho Cleanup Project's Safety Culture provision contains little additional expectations than the requirements found in the existing referenced directives.
- DOE should include specific safety culture expectations and focus areas from DOE G 450.4-1C, consistent with DOE core values and supporting behaviors as requirements within the DOE contracts.
- To meet this end, the following elements for suggested language should be considered:
 - The contractor shall establish and maintain a strong safety culture and safety conscious work environment, in accordance with Departmental expectations and the ISMS DEAR 970.5223-1.
 - Special emphasis should be placed on behaviors and values that specifically enhance sustained employee performance in the three safety focus areas: leadership, employee engagement, and organizational learning.

- The contractor shall leverage required employee concern programs and differing professional opinion processes to encourage the free, open, and fearless expression of employee concerns and their resolution in support of a strong safety culture.
- The contractor shall take action to demonstrate absolute proscription of actions/environment contributing to a chilling effect such as: harassment, intimidation, retaliation, and/or discrimination (for engagement in protected activity).
- The following elements for suggested core DOE performance metrics aligned with DOE core values and supporting behaviors should be considered for use in contract performance award incentive processes and templates:
 - Maintain and implement the approved Safety Culture Sustainment Plan
 - Improve trends in Corrective Action Program condition report corrective action effectiveness, self-identification, and percent of employees issuing condition reports
 - Employee concerns performance which demonstrates responsiveness, employee satisfaction, and reduced recurrence
 - Conduct and effectiveness of management to employee engagement sessions (proactive vice reactive)
 - Percentage/frequency of management time in the field ,and engagements with employees within the workspace
 - Attainment/Maintenance of third party quality certifications (e.g., ASME NQA-1, ISO 9001, VIP, Baldrige).

RECOMMENDATIONS

Based on the CLWG assessment and observations the following is a list of recommendations to consider by SCIP:

- Consistency in the language between contracts. This will ensure a common expectation is communicated to all contractors managing the DOE sites.
- Include specific safety culture elements from DOE G 450.4-1C. This will enable the contractors to design and institute safety processes that meet the desired safety culture that meet the DOE missions.
- Assess the effectiveness of the current contractor performance measures in enhancing safety culture environment across the DOE complex.

Table 1: Safety Culture Elements Included in Contract

Site/Contract No.	Table 1: Safety Culture Elements Included in Contract		
	Integrated Safety Management	Directives included in List B:	Special Contract Clauses
<p>Idaho Cleanup Project Request for Proposal No. DE-SOL-0007097</p>	<p>Section C.8.3.07 Integrated Safety Management System (ISMS), contractor shall establish and maintain a single ISMS program</p>	<p>DOE O 442.1A, <i>Department Of Energy Employee Concerns Program</i></p> <p>DOE O 442.2, <i>Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health</i></p> <p>DOE P 450.4, <i>Safety Management System Policy</i></p>	<p>Section C.8.3.08 Safety Culture: The contractor shall establish and maintain a strong safety culture as required by DOE P 420.1, <i>Department of Energy Nuclear Safety Policy</i> and DOE P 450.4A. The contractor shall also implement effective employee concerns programs. DOE O 442.1A and DOE O 442.2 encourage the free and open expression of employee concerns. The contractor shall set the expectation that employees have not only the right to raise concerns, but also the responsibility to raise concerns, and that they can do so without fear of retaliation. The contractor shall take action to proactively address, or demonstrate adequate and effective response to, chilling effect. The contractor shall also demonstrate evidence of immediate, adequate and effective mitigation of substantiated allegations of harassment, intimidation, retaliation, and/or discrimination (for engagement in protected activity). The contractor shall establish and maintain a strong safety culture and safety</p>

Site/Contract No.	Table 1: Safety Culture Elements Included in Contract		
	Integrated Safety Management	Directives included in List B:	Special Contract Clauses
			conscious work environment (SCWE), in accordance with Departmental expectations and DEAR 970.5223-1, "Integration of Environment, Safety, and Health into Work Planning and Execution", specifically focusing on the three safety focus areas of leadership, employee engagement, and organizational learning. H.57 DOE Contract Administration, Oversight And Safety Oversight
Idaho Cleanup Contract No. DE-AC07- 05ID14516	Section I.141(d) and B.6(d), Requires an approved ISMS	DOE P 450.4 DOE O 442.1A, Attachment 1, "Contracts Requirements Document" (CRD)	H.3 DOE Contract Administration, Oversight and Safety Oversight
LANL M&O Contract No. DE-AC52- 06NA25396	Appendix B, Section 4.2, Requires an approved ISMS	DOE O 442.1A, Attachment 1, CRD, June 6, 2001 DOE O 442.2, Attachment 1, CRD July 29, 2011	
Tank Operations- Hanford Site No. DE- AC27-08RV14800	Section C.3.2 describes the contractor's requirements for ISMS. Requires an approved ISMS	DOE O 442.1A DOE O 442.2 DOE M 450.4-1, <i>Integrated Safety Management System Manual</i>	

Site/Contract No.	Table 1: Safety Culture Elements Included in Contract		
	Integrated Safety Management	Directives included in List B:	Special Contract Clauses
		DOE G 450.4-1C, <i>Integrated Safety Management System Guide</i> (Volume 1) for use with safety management system policies (DOE P 450.4; DOE P 450.5, <i>Line Environment, Safety and Health Oversight</i> ; and DOE P 450.6, <i>Secretarial, Policy Statement Environment, Safety and Health</i>); DOE M 411.1-1C, <i>Safety Management Functions, Responsibilities, and Authorities Manual</i> ; and the DOE Acquisition Regulation.	
Richland Plateau Remediation No. DE-AC06-08RL14788	<p>Section C.3.2 describes the contractor's requirements for ISMS including use of DOE O 450.1A, <i>Environmental Protection Program</i> (or current version). Does not reference DOE O 450.2, <i>Integrated Safety Management</i>.</p> <p>DOE O 450.2 is also not included in List B: "Applicable DOE Directives," nor is DOE P 450.4A, which expresses DOE's commitment to a positive safety culture. DOE O 450.2 assigns to DOE line management, including the ISM Champions Council, the</p>	<p>DOE O 442.1A (Supp Rev. 3), CRD</p> <p>DOE O 442.2, CRD</p>	

Site/Contract No.	Table 1: Safety Culture Elements Included in Contract		
	Integrated Safety Management	Directives included in List B:	Special Contract Clauses
	responsibilities for evaluating and developing strategies for improving DOE's safety culture. The DOE G 450.4-1C expands on guidance for safety culture focus areas.		
Savannah River Site No. DE-AC09- 08SR22470	Section 6.4 and B-9, Requires an approved ISMS	DOE P 450.4 Contract Management Plan: "The Contractor shall: establish and maintain a nuclear safety culture; establish and maintain a culture of continuous improvement;"	
SRS Remediation No. DE-AC09- 09SR22505	Sections C.2.2 and B.5, Requires an approved ISMS. Includes specific guidance on: Appendix G, "Guidance for Preparation of Employee Concerns Program (ECP) Implementation Plan" Appendix H, "Guidance for Preparation of Equal Opportunity Program"	DOE P 450.4 DOE O 442.1A DOE M 450.4-1	
Uranium Processing Facility - Y-12 No. DE-NA-0001942	Section I-18 and Section 4.1, "Requires an approved Integrated Safety Management System"	DOE O 450.2 DOE O 442.2	