Self-Assessment of the CH2M♦WG Idaho, LLC Safety Conscious Work Environment Final Report

September 2013

Approved: 9/12/2013
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9/12/13
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Self-Assessment of the CH2M♦WG Idaho, LLC Safety Conscious Work Environment Final Report

EXECUTIVE SUMMARY

This review was performed according to an approved review plan to fulfill a commitment made by the U.S. Department of Energy to the Defense Nuclear Facilities Safety Board (DNFSB) in the Implementation Plan for DNFSB Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant*. The review was performed in accordance with the guidance and focus areas, attributes, and criteria defined in *Safety Conscious Work Environment Self-Assessment Guidance*, Revision G. The methodology for conducting the review was based on a model developed by Utilities Services Alliance, a proven method in commercial industry, and used to evaluate safety culture at commercial nuclear power plants and other industrial facilities. The methodology consisted of conducting an initial anonymous survey of CH2M♦WG Idaho, LLC (CWI) employees, followed by interviews of management and staff (including field observations), focused on the results of the survey in order to further evaluate issues that emerged from the survey and obtain additional information. The scope of this review was focused on the Safety Conscious Work Environment (SCWE) of the Idaho Cleanup Project (ICP) contractor, CWI. The survey was conducted July 17-31, 2013; the interview portion of the self-assessment was conducted August 12-15, 2013.

RESULTS

The review team determined the focus areas and attributes of CWI's SCWE were implemented and effective, based on the results from the survey, interviews, and observed activities. Most employees felt a strong commitment by the company to improve the safety culture, and had no reservations with raising concerns at any level within the company without fear of retaliation. Moreover, most employees felt there was a significant focus on improving the safety culture, specifically at the Sodium Bearing Waste Treatment Project (a.k.a. Integrated Waste Treatment Unit [IWTU]) since the operational event at the facility in June 2012. Many of those interviewed perceived improvement in safety culture and SCWE companywide since the operational event at IWTU. The team identified 13 positive observations, identified 4 potential vulnerabilities, and provided 3 recommendations. Areas for continuous improvement included communications and teamwork, worker trust in middle management, and improved understanding and trust in the Employee Concerns Program.

RECOMMENDATIONS

1. Foster an improved understanding and trust of the Employee Concerns Program to include: the purpose of the program, confidentiality policies, feedback mechanisms, and when to use the program.
2. Improve inter-group and inter-organizational communication of information and teamwork necessary to accomplish work activities more safely and effectively
3. Foster improved level of trust between mid-level managers and workers.

INTRODUCTION

Background: This review was performed according to an approved review plan to fulfill a commitment made by the U.S. Department of Energy (DOE) to the Defense Nuclear Facilities Safety Board (DNFSB) in the Implementation Plan for DNFSB Recommendation 2011-1, *Safety Culture at the Waste Treatment and Immobilization Plant*. The review was performed in accordance with the guidance and focus areas, attributes, and criteria defined in *Safety Conscious Work Environment Self-Assessment Guidance*, Revision G. The scope of this review was focused on the Safety Conscious Work Environment (SCWE) of the Idaho Cleanup Project (ICP) contractor, CH2M♦WG Idaho, LLC (CWI).

SCWE is defined in aforementioned guidance as a subset of safety culture related to an environment in which employees feel free to raise safety concerns to management (and/or a regulator) without fear of retaliation. The nine safety culture attributes specified in the guidance were reviewed, along with the supplemental topics Performance Measures and Contract Incentives.

In preparing for this self-assessment, the review team co-leaders reviewed an April–May 2012 independent assessment of the safety culture at the Sodium Bearing Waste Treatment Project (a.k.a. Integrated Waste Treatment Unit [IWTU]) ("Independent Oversight Assessment of Nuclear Safety Culture at the Idaho Cleanup Project Sodium Bearing Waste Treatment Project—November 2012"). The 2012 assessment identified specific issues on the project associated with conservative decision-making. Specifically, the report stated:

> "Less than conservative decisions to get things done quickly . . ." and
> "Many interviewees provided examples of where decision making was not perceived to reflect the highest commitment to safety."

As a result of these issues, the safety culture attribute of Conservative Decision-Making was included within the scope of this self-assessment.

Methodology: The methodology for conducting the review was based on a model developed by Utilities Services Alliance, which is a proven method in the commercial industry, and used to evaluate safety culture at commercial nuclear power plants and other industrial facilities. The methodology consisted of conducting an initial anonymous survey of CWI employees and subcontractor personnel. In this case, 844 out of 1205 employees/subcontractors responded to the survey (70%).

The review team then focused interviews to evaluate the top 10 and bottom 10 lines of inquiry from the survey to evaluate the potential issues from the survey data. (Interview lines of inquiry and electronic survey results are provided in Appendix E.) These lines of inquiry were developed using the guidance as a foundational document. The DOE Headquarters Office of Environmental Management (EM) also provided seven additional questions to be used in the survey. These questions were used either explicitly or implicitly based on the existing lines of inquiry developed from the SCWE guidance lines of inquiry and the Institute of Nuclear Power Operations Nuclear Safety Culture Traits crosswalk to SCWE.

Interviews consisted of a random sampling of CWI management and staff from all geographic locations on the Idaho Site and in Idaho Falls, Idaho, and included subcontractors working at the Site. Interviews were conducted individually and in small groups (four or fewer). The review team interviewed 139 management and staff (12%).

Interviews also included field observations (14), such as work group meetings, staff meetings, Executive Safety Review Board proceedings, plan-of-the-day meetings, a fact-finding meeting, pre-job briefings, and physical performance of work. Again, the focus of the interviews and observations was to evaluate the results, compare interviewee perceptions with the survey results, and obtain additional information.

Once interviews and observations were completed, the review team assembled as a group and analyzed the data, including survey results, survey comments, interview results, interview comments, and observation results. This team meeting was highly interactive, with all team members actively participating. Although the review team co-leads initiated the discussions, the review team themselves developed conclusions based on review of all data.

The review team collaboratively developed Positive Observations, Potential Vulnerabilities, and Recommendations based on the results of the data. The following definitions are provided to help understand each term:

> Positive Observations: entire review team perceives an attribute is met in a repeatable and reliable manner based on survey results and validated through interviews and observations.
>
> Potential Vulnerabilities: entire review team perceives an attribute exhibits weakness in a repeatable and reliable manner based on survey results and validated through interviews and observations.
>
> Recommendations: suggested focus areas for improvement from the review team, based on survey results and interviews, substantiated by identified potential vulnerabilities, with the greatest potential for significant improvement in the SCWE.

This self-assessment was conducted in July and August 2013 using an approved review plan. Specifically, the survey was conducted July 17–31, 2013; the interview portion of the self-assessment was conducted August 12–15, 2013.

The review team consisted of representatives from each major organization/company at the Idaho Site: CWI, DOE Idaho Operations Office (DOE-ID), Idaho Treatment Group, LLC (ITG), and Battelle Energy Alliance (BEA). The review team also included a Team Executive from the DOE Headquarters Office of Environmental Management (EM). This review received oversight from representatives from the DOE Office of Health, Safety, and Security. Specific team members and responsible areas were:

Kevin Daniels, CWI	Assessment Co-Leader
Mark Brown, DOE-ID	Assessment Co-Leader
Todd Lapointe, EM-HQ	Team Executive
Scott Ferrara, DOE-ID	Team Advisor
Ron Elsasser, BEA	Safety Culture Subject Matter Expert
Debbie Shepherd, DOE-ID	Survey Development and Data Manager
Jackie Echeverria, CWI	Data Entry and Administrative Support
Julie Finup, DOE-ID	Demonstrated Leadership (DL) and Conservative Decision-Making (CD)
John Detwiler, CWI	DL and CD
Jan Ogilvie, DOE-ID	Management Engagement (ME) and Open Communications (OC)
Mike Smart, ITG	ME and OC
Matthew Steffa, CWI	Clear Expectations (CE), Contract Incentives (CI), and Questioning Attitude (QA)
Saprena Lyons, CWI	CE, CI, and QA
James Lovejoy, DOE-ID	Teamwork (TM) and Credibility and Trust (CT)
Justin Hendricks, ITG	TM and CT
Dave Lent, CWI	Effective Problem Resolution (ER) and Performance Monitoring (PM)
Kirk Wilkie, CWI	ER and PM.

RESULTS

The review team determined the focus areas and attributes of CWI's SCWE were implemented and effective, based on the results from the survey, interviews, and observed activities. Most employees interviewed appeared to be comfortable providing answers to the lines of inquiry, seemed at ease in the interviews, and appeared to be open and honest in their responses. A small minority of employees did appear to be somewhat agitated and hostile during the interviews, expressing distrust with management. However, this was a small minority, and most employees welcomed the review team and were interested in improving the safety culture at CWI.

Most employees felt a strong commitment by the company to improve the safety culture, and expressed no reservations with raising concerns at any level within the company without fear of retaliation. Although the review team found all SCWE focus areas (Leadership, Employee/Worker Engagement, Organizational Learning, and Contract Incentives) and associated attributes to be implemented and effective, some opportunities for improvement were identified. Result summaries for the focus areas and corresponding attributes are provided below. Detailed results of each attribute may be found in Appendix A. Graphical representations of data from survey results and interviews can be found in Appendix B.

Appendix C provides biographical information for the executive team leading this self-assessment. Lessons learned that were developed as a result of conducting this SCWE self-assessment are provided in Appendix D. Details on the SCWE interview lines of inquiry and electronic survey results are provided in Appendix E.

Leadership

The review team found this focus area to be implemented and effective, although some opportunities for improvement were identified. Most employees felt CWI management demonstrated strong safety leadership throughout the organization. They felt senior management (CWI vice presidents and above) performed frequent, quality field visits, had an open door policy, and were very approachable. Employees also felt strong safety leadership at the immediate supervisor level. Interviewees did feel, however, demonstrated safety leadership of the mid-level managers was less visible. As a result, there was a general lack of trust in mid-level management (i.e., above their immediate supervisors). Although no specific reasons were provided by interviewees for this lack of trust, the review team determined, based on interview responses, the more significant cause for this lack of trust was due to the lack of mid-level management engagement with the workforce.

Most management and employees felt comfortable using the Employee Concerns Program (ECP) without fear of retaliation. However, interviews and survey results revealed that some employees were reluctant or refused to use the ECP for a variety of reasons, including fear of retaliation. The review team perceived this employee reluctance to use the ECP as more of a communication problem, vice a program problem. Although this minority opinion surfaced during interviews, the survey data and interviews revealed a large percentage of employees felt accountable for safety and for reporting issues; they also felt comfortable raising safety issues to their immediate supervisor or to CWI senior leadership.

The review team also found most employees felt CWI management and staff have embraced the concept of conservative decision-making. Interviews with employees located at IWTU found this perception on conservative decision-making to be prevalent, more so since the June 2012 operational event that occurred there.

2012 Independent Safety Culture Review of IWTU: In April and May 2012, the DOE Office of Health, Safety, and Security (HSS) conducted an *Independent Oversight Assessment of Nuclear Safety Culture at the Idaho Cleanup Project Sodium Bearing Waste Treatment Project*; the report was released in November 2012. The report stated that CWI senior management needed to fully embrace the value of promoting the behaviors important for a healthy safety culture. Based on the results of this self-assessment, CWI has made significant progress towards promoting the behaviors of a healthy safety culture. The review team specifically reviewed this report and the improvement actions CWI established to address the recommendations provided in the HSS report. The actions were focused on improving the safety culture and behaviors, and were appropriate for the recommendations provided in the report. The review team did note that CWI is continuing efforts to complete the identified actions. The following conclusions were drawn based on the results of this self-assessment (in contrast to the results from the 2012 report):

a. There is evidence of strong management engagement and attention to address the insights provided by the 2012 independent safety culture assessment. This review found evidence of a continuous improvement model within CWI that has resulted in the following positive changes:

- Increased organizational alignment around several fundamental concepts key to a healthy safety culture, including:
  - Safety over Production
  - Raising Issues
  - Questioning Attitude
  - Personal Responsibility for Safety
- Collaborative understanding between DOE and CWI about quality over schedule
- Operational focus
- Management insulation of schedule pressure from the workforce, thus preventing unintended consequences
- Active use of lessons learned.

b. A number of previously identified Areas in Need of Attention from the 2012 report were no longer raised as issues by interviewees or were highlighted as positives in the current review:

- Working outside of procedures and taking shortcuts due to unrealistic schedules and pressure from management—procedure compliance and doing things right were stressed.
- Lack of training and poor training quality—the ability to question training adequacy and request additional training was cited as a positive observation.
- Previous as-low-as-reasonably-achievable (ALARA) and radiological controls concerns were not mentioned.
- Issues perceived as conflicts in organizational standards between CWI, URS, and DOE during the construction phase are resolved and the confusion is eliminated due to greater alignment between CWI and DOE; URS is no longer directly involved in the project; lines of accountability are clearer.
- Employees were able to recount specific examples of lessons learned and resultant behavior changes.
- Interviewees indicated that a strong questioning attitude was cultivated by management and individually viewed as a personal responsibility.

A summary of results for each attribute associated with Leadership is provided below. Details for each attribute can be found in Appendix A.

Demonstrated Safety Leadership: The review team determined the attribute of Demonstrated Safety Leadership (DL) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed CWI employees felt their senior management has demonstrated a high level of leadership through their frequent field visits, open door policy, and approachability. No vulnerabilities were identified for this attribute.

Management Engagement and Time in the Field: The review team determined the attribute of Management Engagement and Time in the Field (ME) was implemented and effective for CWI based on the data reviewed. Employees felt there was a strong, positive senior management presence in the field. While there were a few isolated instances in which this was not as strongly supported, a majority of employees agreed that the company president and vice presidents were easy to talk with, easy to relate to, and commonly seen on the job; and they genuinely care about everyone's safety. Contrary to this, however, was a belief by some employees that mid-level management was less approachable than senior management. Many employees voiced a reluctance to interact with mid-level management, citing a personal perception of mistrust towards mid-level managers. In addition, there also appeared to be a belief that mid-level management was not as visible in the field and did not interact with employees outside of monitoring progress.

Open Communication and Fostering an Environment Free from Retribution: For the SCWE attribute of Open Communication and Fostering an Environment Free from Retribution (OC), the review team determined the attribute was implemented and effective within CWI. However, a potential vulnerability was identified where some employees did not feel comfortable using the CWI ECP for various reasons. Overall, the results in this area were generally positive.

Clear Expectations and Accountability: The review team determined the attribute of Clear Expectations and Accountability (CE) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt accountable for safety in the workplace and accountable for reporting issues. No vulnerabilities were identified for this attribute. Individual performance feedback and safety rewards programs were generally viewed by the employees as adequate and beneficial.

Risk-Informed, Conservative Decision-Making: The review team determined the safety culture attribute of Conservative Decision-Making (CD) was implemented and effective for CWI based on the data reviewed. Although this attribute was not required to be reviewed for the SCWE self-assessment, a review team leaders added this safety culture attribute based on past history at CWI and based on the June 16, 2012, operational event that occurred at IWTU. Most CWI employees felt management and staff have embraced the concept of conservative decision-making. Many CWI employees felt co-workers follow procedures and make conservative decisions that support safe and reliable operations. Most employees felt immediate supervisors support the right to stop work if something unsafe is seen. No vulnerabilities were identified for this attribute.

Employee/Worker Engagement

The review team found this focus area to be implemented and effective. Most employees felt they were adequately engaged in identifying and resolving problems. Most felt there was an emphasis of resolving the issues, vice focusing on the individuals. Although most workers felt good communications, teamwork, and engagement within their work groups, there were indications of less-than-adequate communications and teamwork between work groups and across organization boundaries.

Teamwork and Mutual Respect: The review team determined the attribute of Teamwork and Mutual Respect (TM) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt comfortable working with each other. Crosscutting programs, like Changing Our Behavior Reduces Accidents (COBRA), Safety Flashes, Back-to-Work safety presentation after long weekends or holidays, were positively identified by most employees as helpful programs. Several employees stated that, as a result of the safety emphasis at work, they have an increased awareness of and practice safe behaviors at home and with their families. The Safety Bucks program was also recognized during interviews and observed by the team as being effective and beneficial in building a strong safety culture. During interviews, it was noted that CWI changed the terminology of an incident investigation from a "critique" to a "fact finding" to change the approach from finding blame to looking for opportunities for improvement. Employees at all levels felt comfortable working with each other and discussing issues for resolution rather than withholding information between peers and management. Interview results revealed employees perceived good communications and teamwork within their own work group, but indicated communications and teamwork across group and organization boundaries were not as productive or effective.

Organizational Learning

The review team found this focus area to be implemented and effective. Most employees felt CWI effectively uses the lessons learned program to improve performance and safety. They also felt strongly that the company supported and monitored employee safety. Moreover, most employees felt CWI was focused and engaged to improve the safety culture. Employees felt comfortable challenging each other on safety issues and felt there were multiple means to report safety concerns. Although employees felt there was a high level of trust in their immediate supervisors and in the CWI senior leadership, the review team found a "trust gap" in mid-level management. Based on interview results, this gap appeared to be the result of a lack of a developed relationship and limited field interactions between the employees and mid-level management. Overall, however, the results in this focus area were very positive.

Credibility, Trust, and Reporting Errors and Problems: The review team determined the attribute of Credibility and Trust (CT) was implemented and effective for CWI based on the data reviewed. Most employees felt confidence and trust in their immediate supervisors. The crafts and supervisors interviewed felt that issues should be reported as soon as possible and without repercussions or retribution for self-reporting personal failures. An observation

during the assessment demonstrated the willingness of employees to report a failure without fear of management retaliation. The philosophy expressed during interviews was that mistakes are opportunities for improvement and learning. Craftsmen and supervisors clearly indicated that peer-to-peer reviews and assistance were accepted and practiced. While employees did indicate a high level of trust and respect for their immediate supervisor, trust seemed to be lacking with certain other lateral or higher-level management. Interviews revealed a possible cause for this was due the lack of a developed relationship between workers and mid-level management. Improvement was needed to build relationships and trust between mid-level management and employees in those instances. Most employees, however, trusted CWI senior management (i.e., vice presidents and above).

Effective Resolution of Reported Problems: The review team determined the attribute of Effective Resolution of Reported Problems (ER) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt the company's issues management process was effective. No vulnerabilities were identified for this attribute. Performance assurance activities were generally considered adequate and beneficial.

Performance Monitoring Through Multiple Means: The review team determined the attribute of Performance Monitoring Through Multiple Means (PM) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees and managers felt strongly that the company supports and monitors employee safety.

Questioning Attitude: The review team determined the attribute of Questioning Attitude (QA) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt comfortable challenging each other on safety issues. Most employees were comfortable with and felt there were multiple means to report safety concerns.

Performance Measures and Contract Incentives

The review team found this supplemental (per the guidance) focus area to be implemented and effective. The review team found the survey and interview results in this area were the least positive, compared to other focus areas and attributes. This was attributed primarily to a lack of knowledge in the area by most working-level employees. Although employees generally felt some frustration at the delay in paying out "Safe Units" due to final contract fee negotiations between DOE and CWI, this was not germane to this focus area. Overall, however, interviews and survey results confirmed CWI employees generally felt adequate contract incentives were in place to preserve employees' willingness to raise safety issues and to ensure effectiveness of safety management programs.

Contract Incentives: The review team determined the attribute of Contract Incentives (CI) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed CWI employees generally felt adequate contract incentives were in place to preserve employees' willingness to raise safety issues and to ensure effectiveness of safety

management programs. A review of the CWI contract, DE-AC07-05ID14516, *Idaho Cleanup Project (ICP) Contract*, revealed the presence of Department of Energy Acquisition Regulation (DEAR) 952.223-76, "Conditional Payment of Fee or Profit—Safeguarding Restricted Data and Other Classified Information and Protection of Worker Safety and Health." The review team co-leaders reviewed past DOE use of this clause with CWI to preserve the aforementioned safety measures and found its use to be effective in improving contractor performance when appropriate and needed.

CONCLUSION AND RECOMMENDATIONS

The review team determined the focus areas and attributes of CWI's SCWE were implemented and effective, based on the results from the survey, interviews, and observed activities. Employees felt a strong commitment by the company to improve the safety culture, and most had no reservations with raising concerns at any level within the company without fear of retaliation. Moreover, employees felt there was a significant focus on improving the safety culture, specifically at IWTU since the June 2012 operational event. Many of those interviewed perceived improvement in safety culture and SCWE companywide since the operational event at IWTU. The recommendations provided below were developed by the review team to provide CWI management focused areas for improvement where the most value for effort can be obtained. Since this review was based on employee perceptions and feelings at the time of the survey and interviews, CWI management should evaluate the results of this report in its entirety, including the attribute details provided in Appendix A. Any improvements considered by CWI as a result of this review should be carefully considered with a focus on the culture and assumptions that drive the behaviors that reflect the organization's safety culture.

Recommendations

1. Foster an improved understanding and trust of the Employee Concerns Program to include: the purpose of the program, confidentiality policies, feedback mechanisms, and when to use the program.
2. Improve inter-group and inter-organizational communication of information and teamwork necessary to accomplish work activities more safely and effectively.
3. Foster improved level of trust between mid-level managers and workers.

Appendix A

Attribute Summary and Results

Attribute Summary and Results
Demonstrated Safety Leadership—DL

The review team determined the attribute of Demonstrated Safety Leadership (DL) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed CWI employees felt their senior management has demonstrated a high level of leadership through their frequent field visits, open door policy, and approachability. No vulnerabilities were identified for this attribute.

While employees indicated a high level of demonstrated leadership from their immediate supervisors, this did not flow to certain other lateral or mid-level management. Interviews revealed a possible cause for this was due the lack of a developed relationship between workers and mid-level management. Improvement was needed to build relationships between mid-level management and employees in those instances. Most employees, however, felt CWI senior management (vice presidents and the president) portrayed exemplary leadership.

In comparing the evaluated results of the data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was mostly in alignment.

Any slight deviations were supported by the fact the survey evaluations were generally more positive than during the interviews, which is contrary to human nature expectations.

The following observations were identified.

Positive Observations:

- Senior management has demonstrated leadership by frequent field visits and approachability.

Potential Vulnerabilities:

None.

Additional data from surveys, interviews, and observations:

- Many employees felt managers and supervisors engaged the workers in changes to processes and procedures to ensure safety is covered.
- Some employees felt that their immediate managers and first-line supervisors spent time in the field mentoring and observing activities to ensure expectations were being met.
- Some managers felt employees were using the step back/stop work process for non-safety issues.
- Many first-line supervisors frequently performed workplace walkdowns and actively interfaced with employees in the field.
- Many managers felt their employees have embraced the company safety culture.
- Many employees expressed a lack of engagement between mid-level management and the workforce.

Attribute Summary and Results
Management Engagement—ME

The review team determined the attribute of Management Engagement and Time in the Field (ME) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed, through comparative analysis of data gathered from the survey and from employee interviews, evidence indicates a strong, positive senior management presence in the field. While there were a few isolated instances in which this was not as strongly supported, a majority of employees agreed that the company president and vice presidents were easy to talk with, easy to relate to, and commonly seen on the job; and they genuinely care about everyone's safety.

Contrary to this, however, was a belief by some employees that mid-level management was less approachable than senior management. Many employees voiced a reluctance to interact with mid-level management, citing a personal perception of mistrust towards mid-level managers. In addition, there also appeared to be a belief that mid-level management was not as visible in the field and did not interact with employees outside of monitoring progress.

Positive Observations:

- Senior management is in the field and engaged.

Potential Vulnerabilities:

- Interviews indicated a lack of engagement between mid-level management and the workforce.

Additional data from surveys, interviews, and observations:

- Most employees felt the CWI president was very approachable and was trusted—He "walked-the-walk" as well as "talked-the-talk."
- Employees related well with the CWI president and vice presidents, primarily because employees felt the president and vice-presidents all worked their way through the ranks from the bottom to the top—they "know" how it is and "know" what people are going through.

Attribute Summary and Results
Open Communication—OC

For the Safety Conscious Work Environment (SCWE) attribute of Open Communication and Fostering an Environment Free from Retribution (OC), the review team determined the attribute was implemented and effective within CWI. However, a potential vulnerability was identified where some employees did not feel comfortable using the CWI Employee Concerns Program (ECP) for various reasons. Overall, the results in this area were generally positive.

The report for the 2013 Annual Assessment of the CWI ECP was reviewed by the SCWE self-assessment team. The annual ECP assessments also include employee surveys. In this case, the 2013 Annual ECP Assessment included ECP survey results from 2011, 2012, and 2013. Overall, the CWI ECP showed increased awareness and trust during the 3 years monitored, as demonstrated through the reported survey results. The CWI program meets the Health, Safety, and Security recommendations resulting from the Independent Oversight Review of the Hanford Site Employee Concerns Programs, with minor exceptions.

For this SCWE self-assessment, although over 75% of the survey respondents provided positive indication they would use the CWI ECP, some employees expressed a reluctance to use the ECP. Although this reluctance was a minority opinion by the employees, it was a consistent minority across the organization. A variety of reasons provided by the employees for not using the program included: fear of retaliation, lack of feedback, lack of confidentiality, or they considered its use as a last resort **(Recommendation)**. Interviewees provided indications this was not a program problem, but perhaps related to communications and management endorsement of the program. The review team noted 57% of the interviewees responded positively to their willingness to use the ECP, compared to 75% on the survey. A potential reason for the disparity in the data may be due to the manner in which the interview responses were evaluated by the review team.

Most employees felt comfortable bringing concerns to their first-line supervisor. Management interviewees felt comfortable raising concerns to their management and to the ECP. The review team noted interviewees who stated they would not use the ECP generally provided few examples to justify their reluctance to use the ECP.

During interviews, the ECP received mixed reviews, including one instance where an employee stated that they did not have faith in confidentiality. While, in general, interviewees were not negative when questioned about the ECP, there may be opportunities to improve employee awareness of ECP processes and potential outcomes.

The following observations were identified:

<u>Positive Observations</u>:

- Most employees felt management wanted concerns reported, and most employees felt comfortable raising concerns.
- Most employees received and valued face-to-face communication.
- The workforce feels like the safety incentives programs are beneficial.

Potential Vulnerabilities:

- Some employees did not feel comfortable using the ECP for fear of retaliation, a lack of feedback, no confidentiality, and it was a last resort.

Additional data from surveys, interviews, and observations:

None.

Attribute Summary and Results
Clear Expectations and Accountability—CE

The review team determined the attribute of Clear Expectations and Accountability (CE) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt accountable for safety in the workplace and accountable for reporting issues. No vulnerabilities were identified for this attribute. Individual performance feedback and safety rewards programs were generally viewed by the employees as adequate and beneficial.

In comparing the evaluated results of these data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was not in alignment. However, in reviewing the specific comments to the survey questions and the comments received during interviews, the specific responses were generally consistent. It is believed that the misalignment in data sets is due to the manner in which the interview responses were evaluated. This is further supported by the fact the survey evaluations were generally more positive than during the interviews, contrary to human nature expectations.

Positive Observations:

- Employees felt accountable for safety and reporting issues.

Potential Vulnerabilities:

None.

Additional data from surveys, interviews, and observations:

- Some employees felt that poor performers were rewarded with easier work assignments and that there were employees who took advantage of this.
- Most employees enjoyed the recognition for excellent performance, such as safety celebrations, work group dinners, project barbeques, gift cards, and Star Bucks.
- Most employees indicated receiving feedback at least annually. Some employees indicated a much greater frequency of feedback, such as weekly.

Attribute Summary and Results
Conservative Decision-Making—CD

The review team determined the safety culture attribute of Conservative Decision-Making (CD) was implemented and effective for CWI based on the data reviewed. Although this attribute was not required to be reviewed for the SCWE self-assessment, the review team co-leaders added this safety culture attribute based on past history at CWI and based on the June 16, 2012, operational event that occurred at IWTU. Most CWI employees felt management and staff have embraced the concept of conservative decision-making. Many CWI employees felt co-workers follow procedures and make conservative decisions that support safe and reliable operations. Most employees felt immediate supervisors support the right to stop work if something unsafe is seen. No vulnerabilities were identified for this attribute.

The response of the survey was generally in alignment with the evaluated results of the survey and interviews. The review team did find a moderately higher level of acceptance concerning management fully supporting conservative decision-making despite cost or schedule pressure during the interviews than during the electronic survey. Following a review of the documented responses to interviews and the survey comments, the existence of a more favorable response in results is perhaps due to the manner employees perceived 'fully' in the survey question.

Positive Observations:

- Management and staff have embraced the concept of conservative decision-making.

Potential Vulnerabilities:

None.

Additional data from surveys, interviews, and observations:

- CWI employees generally felt co-workers follow procedures and make conservative decisions that support safe and reliable operations, and their immediate supervisors support the right to stop work if something unsafe is seen.
- Spirited discussions between co-workers reinforced the importance of workplace compliance to regulations.
- Employees generally felt management supported conservative decision-making (one exception was identified with some heat stress calculations for job stay times).
- Some managers felt they were responsible for removing schedule pressures.
- Employees generally felt senior management was completely accessible with an open door policy and field presence.
- Some management felt working safely would ultimately increase production, and time and schedule pressure would not be a factor.
- Many employees felt that step backs and stop work were used appropriately and frequently.

Attribute Summary and Results
Teamwork and Mutual Respect—TM

The review team determined the attribute of Teamwork and Mutual Respect (TM) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt comfortable working with each other. Crosscutting programs, like COBRA, Safety Flashes, Back-to-Work safety presentation after long weekends or holidays, were positively identified by most employees as helpful programs. Several employees stated that, as a result of the safety emphasis at work, they have an increased awareness of and practice safe behaviors at home and with their families. The Safety Bucks program was also recognized during interviews and observed by the team as being effective and beneficial in building a strong safety culture. During interviews, it was noted that CWI changed the terminology of an incident investigation from a "critique" to a "fact finding" to change the approach from finding blame to looking for opportunities for improvement. Employees at all levels felt comfortable working with each other and discussing issues for resolution rather than withholding information between peers and management. Interview results revealed employees perceived good communications and teamwork within their own work group, but indicated communications and teamwork across group and organization boundaries were not as productive or effective **(Recommendation)**.

The review team determined that communication up and down the management chain was a potential vulnerability. Specifically, craftsmen felt feedback on identified issues was inadequate. Although interviewees stated "carpool" communications were open between crews and crafts, this was not a reliable means to communicate information from management to the workers. Communication builds trust with the crafts and management, and improvement should be fostered in this area. The crafts indicated that, if management from one shift makes negative remarks about another shift of workers, then it can create a negative environment for everyone.

In comparing the evaluated results of the data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was not in alignment. In reviewing the specific comments to the survey questions and the comments received during interviews, the specific responses were generally consistent. It is believed that the misalignment in data sets is due to the manner in which the interview responses were evaluated. This is further supported by the fact the survey evaluations were generally more positive than during the interviews, contrary to human nature expectations.

Positive Observations:

- Most employees felt there was a strong focus on problems instead of individuals.

Potential Vulnerabilities:

- There were some indications of less-than-adequate communications and teamwork across organizations.

Additional data from surveys, interviews, and observations:

- Many employees felt management shared both good news and bad news as soon as possible or as soon as the information was available.

Attribute Summary and Results
Credibility, Trust, and Reporting Errors and Problems—CT

The review team determined the attribute of Credibility and Trust (CT) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed the lines of inquiry associated with the attribute of "Credibility and Trust" (CT) were observed as being evident at all levels of the company. Most employees felt confidence and trust in their immediate supervisors. The crafts and supervisors interviewed felt that issues should be reported as soon as possible and without repercussions or retribution for self-reporting personal failures. An observation during the assessment demonstrated the willingness of employees to report a failure without fear of management retaliation. The philosophy expressed during interviews was that mistakes are opportunities for improvement and learning. Craftsmen and supervisors clearly indicate that peer-to-peer reviews and assistance were accepted and practiced. CWI supervisors stated that the management philosophy was an upside-down pyramid to support the crafts.

While employees did indicate a high level of trust and respect for their immediate supervisor, trust seemed to be lacking with certain other lateral or higher-level management. Interviews revealed a possible cause for this was due the lack of a developed relationship between workers and mid-level management. Improvement was needed to build relationships and trust between mid-level management and employees in those instances **(Recommendation)**. Most employees, however, trusted CWI senior management (vice presidents and the president).

In comparing the evaluated results of these data sources (survey, survey comments, and interviews) and reviewing the specific comments to the survey questions and the comments in interviews, the responses were generally consistent. Any misalignment in data sets is due to the manner in which the interview responses were evaluated. This is further supported by the fact the survey evaluations were generally more positive than during the interviews, contrary to human nature expectations.

Positive Observations:

- A high percentage of employees trusted their immediate supervisors.

Potential Vulnerabilities:

- Most employees felt a lack of trust beyond their immediate supervisor (except for senior management).

Additional data from surveys, interviews, and observations:

- Some employees felt strongly that CWI management communicates openly and honestly.
- Employees have loyalty to first-line supervision and managers but did not have the same confidence in other management at a mid-level or supervisors of other shifts.
- Employees generally felt that CWI values early reporting of safety issues as an opportunity to learn vice placing blame.

Attribute Summary and Results
Effective Resolution of Reported Problems—ER

The review team determined the attribute of Effective Resolution of Reported Problems (ER) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt the company's issues management process was effective. No vulnerabilities were identified for this attribute. Performance assurance activities were generally considered adequate and beneficial.

In comparing the evaluated results of these data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was generally in agreement. The survey results for this attribute contain both a top 10% highest-rated item and a bottom 10% lowest-rated item. In both cases, interview data closely mirrored electronic survey data results.

The survey results for this attribute indicate employees felt positive about the use of lessons learned. A review of specific survey questions and responses from the interviews indicates that most non-managerial personnel do not have a working knowledge of the ICARE system, which could contribute to primarily negative responses.

Positive Observations:

- Employees felt CWI effectively uses lessons learned.

Potential Vulnerabilities:

- None.

Additional data from surveys, interviews, and observations:

- Management personnel interviewed considered the corrective action process to be effective.
- Some employees felt encouraged to offer ideas for improved performance.
- Managers generally felt the ICARE system was effective in issue management.
- Workers at IWTU felt a marked improvement in the way procedures are revised as a result of startup issues.
- Managers positively acknowledged in interviews that weaknesses in performance are trended, communicated, and corrected.
- Workers identified several situations where safety issues required resolution prior to resumption of work activities.
- Some workers did not feel their input on performance improvements were valued.
- Some crew members did not feel they were receiving timely formal feedback on emergent facility issues.

Attribute Summary and Results
Performance Monitoring—PM

The review team determined the attribute of Performance Monitoring Through Multiple Means (PM) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees and managers felt strongly that the company supports and monitors employee safety.

In comparing the evaluated results of these data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was closely aligned with each other. Analysis of interview results revealed this to be the only attribute with no negative responses. It was also noted that employees felt positive improvements in work activities are resulting from management presence in the field.

Positive Observations:

- Most employees felt CWI was focused and engaged to improve the safety culture.

Potential Vulnerabilities:

- None.

Additional data from surveys, interviews, and observations:

- Employees felt there was a significant focus on improving the safety culture at IWTU since the June 2012 operational event at IWTU.
- Both managers and workers answered very positively that the company is concerned with safety culture and monitors it periodically.
- Generally, managers were better versed in discussing performance monitoring.
- Some workers could quote specific safety statistics related to their work.
- Workers perceive management as very supportive and willing to take appropriate actions when safety issues are raised.
- Workers generally noted that their managers and supervisors are engaging employees in the field.

Attribute Summary and Results
Questioning Attitude—QA

The review team determined the attribute of Questioning Attitude (QA) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed most CWI employees felt comfortable challenging each other on safety issues. Most employees were comfortable with and felt there were multiple means to report safety concerns.

In comparing the evaluated results of the data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was not in alignment. In reviewing the specific comments to the survey questions and the comments received during interviews, the specific responses were generally consistent. It is believed that the misalignment in data sets is due to the manner in which the interview responses were evaluated. This is further supported by the fact the survey evaluations were generally more positive than during the interviews, contrary to human nature expectations.

Additionally, in the review of the specific responses for both survey and interviews, many employees indicated they did not understand what was being asked for one question (QA.3—When issues arise that are out of the normal, a focus on proving why it is safe to proceed is supported vice why it isn't unsafe.).

Positive Observations:

- Most employees felt comfortable challenging each other on safety issues.
- Most employees felt there were multiple ways of raising safety issues.

Potential Vulnerabilities:

- None.

Additional data from surveys, interviews, and observations:

- Many employees indicated an issue brought directly to senior management, specifically the CWI president, would be received well and acted upon.
- Some employees did not see the ECP as a viable means for raising an issue.
- Most employees felt issues raised are evaluated with a need to prove continued safe work.

Attribute Summary and Results
Contract Incentives—CI

The review team determined the attribute of Contract Incentives (CI) was implemented and effective for CWI based on the data reviewed. Interviews and survey results confirmed CWI employees generally felt there were adequate contract incentives in place to preserve employees' willingness to raise safety issues and to ensure effectiveness of safety management programs.

A review of the CWI contract, DE-AC07-05ID14516, *Idaho Cleanup Project (ICP) Contract*, revealed the presence of Department of Energy Acquisition Regulation (DEAR) 952.223-76, "Conditional Payment of Fee or Profit—Safeguarding Restricted Data and Other Classified Information and Protection of Worker Safety and Health." The review team co-leader reviewed past DOE use of this clause with CWI to preserve the aforementioned safety measures and found its use to be effective in improving contractor performance when appropriate and needed.

In comparing the evaluated results of these data sources (survey, survey comments, and interviews), the response evaluation between the survey and interviews was generally in agreement between each of them. The survey results for this attribute were the lowest in positive responses compared to all other attributes. A review of this survey question, the survey comments, and the specific responses from the interviews revealed that most employees responded to this question from the perspective of individual employee incentives, not contract incentives.

Positive Observations:

- None.

Potential Vulnerabilities:

- None.

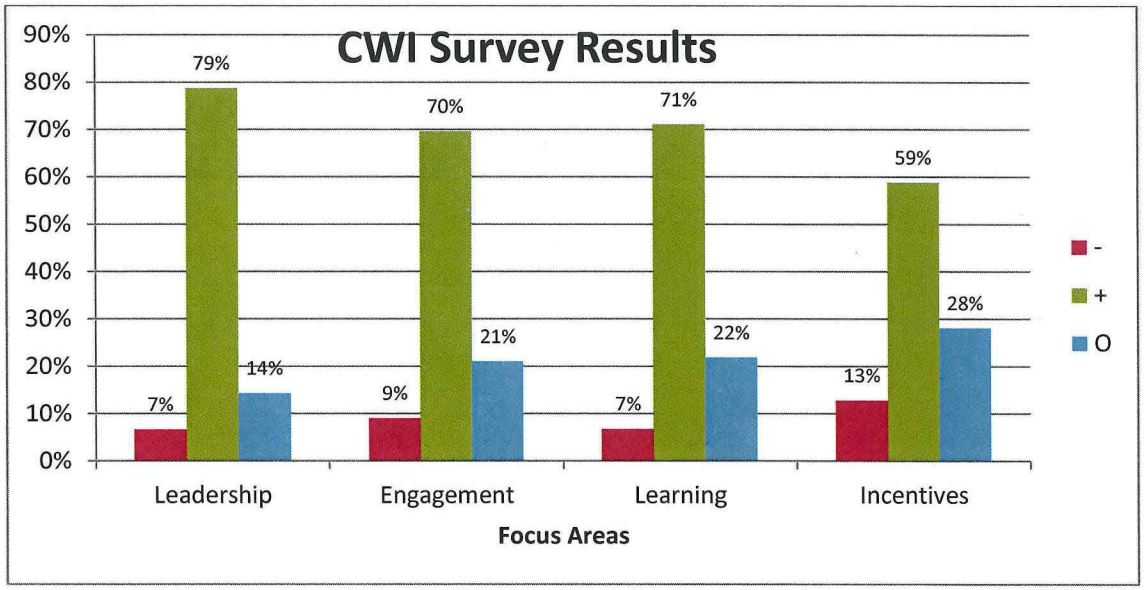
Additional data from surveys, interviews, and observations:

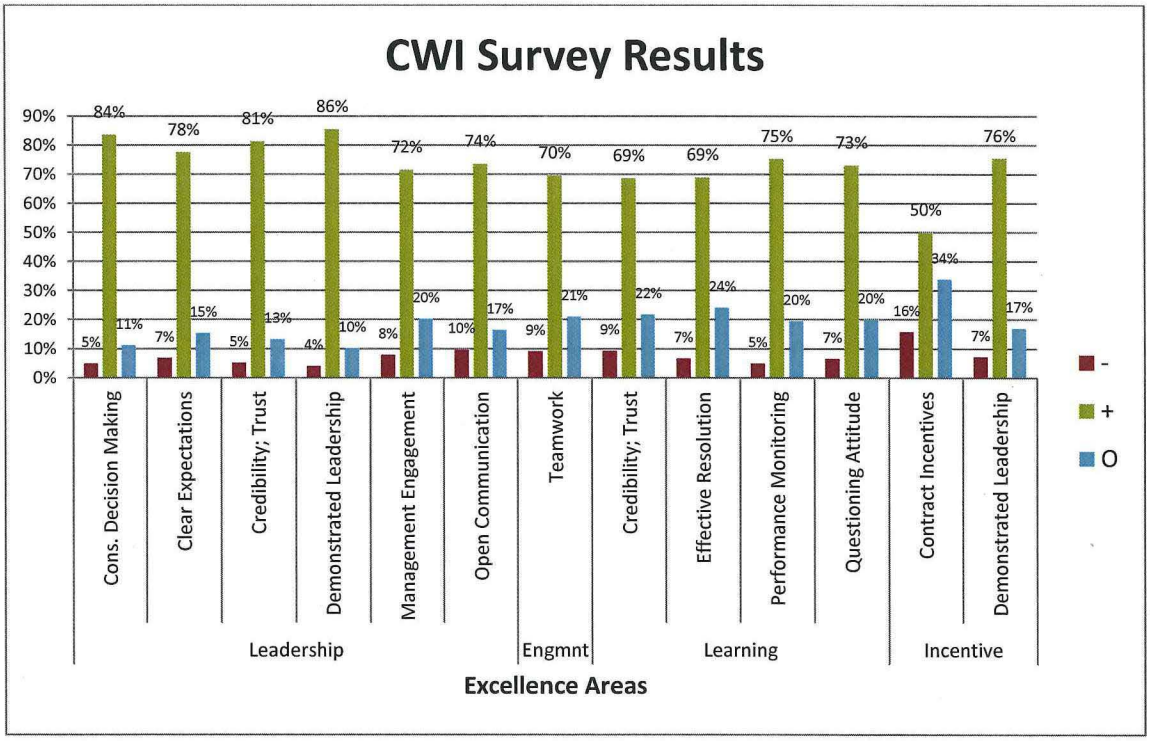
- Most employees expressed a high level of disappointment for the individual incentive program, almost all of which was the result of Safe Unit delay for ICP-I (initial contract period 2005–2012) work completion and/or lack of knowledge of the ICP-II (extension contract period 2013–2015) incentive program.
- Most employees noted management presence in the workplace; most managers indicated their use of the Management Workplace Visit program to document their field presence.
- Most employees felt their co-workers followed procedures and made conservative decisions that supported safety.
- Most employees felt that CWI was concerned about the safety culture and monitored its performance; safety programs such as COBRA and Employee Safety Team meetings were cited as examples.

Appendix B

Survey and Interview Data

Survey and Interview Data





CWI Survey Results by SCWE Focus Area and Attribute (or 'Excellence') Area: This chart graphically represents the results of the survey data for the indicated SCWE focus areas and attributes; the survey was administered July 17–31, 2013. The Red (left bar) indicates negative responses in the displayed area. The Green (middle bar) represents positive responses in the displayed area. The Blue (right bar) represents neutral responses in the displayed area. (Note: Although this chart displays "Demonstrated Leadership" under the focus area of Incentive, it actually falls under the focus area of Leadership.)

Row Labels	-	+	O
CD.1	2%	90%	8%
CD.2	11%	67%	22%
CD.3	1%	94%	4%
CE.1	8%	74%	18%
CE.2	2%	90%	8%
CE.3	13%	62%	24%
CI.1	16%	50%	34%
CT.1	10%	68%	22%
CT.2	7%	75%	18%
CT.3	9%	64%	27%
CT.4	5%	78%	17%
CT.5	9%	72%	19%
CT.6	13%	59%	28%
DL.1	4%	89%	8%
DL.2	5%	83%	12%
DL.3	2%	96%	2%
DL.4	5%	83%	12%
DL.5	5%	79%	16%
DL.6	7%	76%	17%
ER.1	8%	64%	29%
ER.2	7%	63%	30%
ER.3	9%	56%	34%
ER.4	3%	86%	11%
ER.5	4%	77%	19%
ER.6	7%	71%	22%
ME.1	8%	73%	19%
ME.2	7%	74%	19%
ME.3	9%	68%	23%
OC.1	8%	73%	20%
OC.2	6%	81%	13%
OC.3	8%	80%	12%
OC.4	10%	74%	16%
OC.5	16%	61%	23%
PM.1	4%	73%	23%
PM.2	5%	74%	21%
PM.3	6%	76%	18%
PM.4	5%	75%	20%
PM.5	6%	69%	25%
PM.6	5%	75%	20%
PM.7	3%	88%	9%
QA.1	7%	79%	14%
QA.2	8%	64%	29%
QA.3	6%	70%	24%
TM.1	9%	74%	17%
TM.2	9%	66%	24%
TM.3	12%	65%	24%
TM.4	6%	77%	17%
Grand Total	**7.3%**	**73.5%**	**19.2%**

CWI Survey Results by Question per Attribute Area: This table represents the results of the survey data for the indicated attribute question from those employees that took the anonymous survey July 17–31, 2013. This chart also represents how the top 10 positive results and bottom 10 negative results were used to guide the interview process.

Leadership			
DL.1	+	25	31
	0	5	
	-	1	
DL.2	+	16	23
	0	6	
	-	1	
DL.3	+	23	24
	0	1	
	-	0	
DL.4	+	50	66
	0	12	
	-	4	
DL.5	+	16	20
	0	4	
	-	0	
DL.6	+	5	13
	0	7	
	-	1	
CD.1	+	26	28
	0	1	
	-	1	
CD.2	+	46	79
	0	30	
	-	1	
CD.3	+	33	39
	0	6	
	-	0	
ME.1	+	34	39
	0	4	
	-	1	
ME.2	+	26	33
	0	5	
	-	2	
ME.3	+	8	13
	0	3	
	-	2	
OC.1	+	22	25
	0	3	
	-	0	
OC.2	+	41	51
	0	8	
	-	2	
OC.3	+	33	46
	0	6	
	-	7	
OC.4	+	48	83
	0	20	
	-	15	
OC.5	+	23	32
	0	9	
	-	0	
OC.6	+	25	34
	0	7	
	-	2	
CE.1	+	11	38
	0	23	
	-	4	
CE.2	+	32	32
	0	0	
	-	0	
CE.3	+	9	32
	0	22	
	-	1	
Total	+	552	781
	0	182	
	-	47	

Engagement			
TM.1	+	24	35
	0	7	
	-	4	
TM.2	+	61	84
	0	21	
	-	2	
TM.3	+	69	86
	0	16	
	-	1	
TM.4	+	31	34
	0	3	
	-	0	
Total	+	185	239
	0	47	
	-	7	

Learning			
CT.1	+	19	30
	0	6	
	-	5	
CT.2	+	28	57
	0	27	
	-	2	
CT.3	+		38
	0	5	
	-	5	
CT.4	+	28	23
	0	2	
	-	0	
CT.5	+	36	41
	0	3	
	-	2	
CT.6	+	58	94
	0	32	
	-	4	
ER.1	+	18	41
	0	20	
	-	3	
ER.2	+	19	36
	0	12	
	-	5	
ER.3	+	23	45
	0	17	
	-	5	
ER.4	+	27	37
	0	10	
	-	0	
ER.5	+		11
	0	1	
	-	0	
ER.6	+	10	51
	0	17	
	-	6	
PM.1	+	5	7
	0	2	
	-	0	
PM.2	+	9	24
	0	15	
	-	0	
PM.3	+	12	12
	0	0	
	-	0	
PM.4	+	6	9
	0	3	
	-	0	
PM.5	+	8	11
	0	3	
	-	0	
PM.6	+	7	9
	0	2	
	-	0	
PM.7	+	36	36
	0	0	
	-	0	
QA.1	+	29	52
	0	21	
	-	2	
QA.2	+	22	41
	0	15	
	-	4	
QA.3	+	10	19
	0	9	
	-	0	
Total	+	488	751
	0	220	
	-	43	

Incentives			
CI.1	+	31	65
	0	20	
	-	14	
PM.7	+	2	2
	0	0	
	-	0	
CD.1	+	3	3
	0	0	
	-	0	
ME.2	+	6	8
	0	0	
	-	2	
DL.5	+	3	3
	0	0	
	-	0	
Total	+	45	81
	0	20	
	-	16	

14 Observations

136 Interviews

CWI Interview Results by Question per Attribute Area: This table represents the results of the interview data for the indicated attribute question from those employees interviewed August 12–14, 2013. This chart also represents how the top 10 positive results and bottom 10 negative results were used to guide the interview process.

Appendix C

Executive Team Member Biographies

Self-Assessment Executive Team Member Biographies

Kevin W. Daniels—Team Co-Lead: Mr. Daniels has over 39 years of nuclear experience. During his 22 years of Naval Nuclear experience he qualified on three different reactor designs and qualified as a Joint Test Group and Joint Refueling Group member representing the Naval Reactor Program. He also served as a radiological controls expert for Naval Reactors. Mr. Daniels has over 15 years nuclear experience in operational, environmental, safety, health, and quality senior leadership positions, primarily within the DOE complex. He has worked at the DOE's Rocky Flats Environmental Technology Site, Idaho Cleanup Project, and Hanford Tank Farms Projects. In addition, he was the Project Manager for completion of a research reactor decommissioning at the University of Michigan and was the Manager responsible for the initial Health, Safety, Security, and Environmental program development for the nuclear energy program in the United Arab Emirates. Mr. Daniels has been a qualified cause analyst and a qualified lead auditor. He has been assigned as conduct of operations mentor and has participated on numerous DOE Project readiness reviews (MSAs, CRAs, & ORRs), and ISMS reviews. Mr. Daniels has received formal training in Safety Culture attributes, including a DOE National Training Center course on Safety Conscious Work Environment. He is currently the Vice President for Environmental, Safety, Health, and Quality at the Idaho Cleanup Project.

Mark C. Brown—Team Co-Lead: Mr. Brown is the Assistant Manager for Nuclear and Safety Performance for the DOE Idaho Cleanup Project (ICP) within the DOE Idaho Operations Office. He is responsible for providing subject matter expertise in safety, health, and quality areas, supporting line management to facilitate achievement of the DOE Environmental Management (EM) cleanup mission. Specific programs and areas of responsibility include ICP oversight process, operational metrics, Integrated Safety Management System (ISMS) implementation and review, nuclear safety (including Safety System Oversight resources), radiological controls, quality assurance, and industrial safety. Mr. Brown has been with DOE since 1995, and has over 29 years of experience with nuclear operations and providing oversight of environmental restoration activities. Mr. Brown is a qualified Lead Auditor, and has received formal training in Safety Culture attributes, including a DOE National Training Center course on Safety Conscious Work Environment.

Todd N. Lapointe—Team Executive: Mr. Lapointe is the Director of the U.S. Department of Energy's Office of Environmental Management, Office of Safety Management (EM-41) at Headquarters in Washington, D.C. Mr. Lapointe is responsible for ensuring proper implementation and continuous improvement of Integrated Safety Management Systems (ISMS) across the EM complex and serving as a focal point for EM safety standards and policy development and interpretation and interfaces with internal/external oversight organizations. Mr. Lapointe is also responsible for serving as the focal point within EM on all Defense Nuclear Facilities Safety Board (DNFSB) -related issues and ensuring timely and technically sound resolution of its recommendations and concerns. As a DOE recognized Senior Technical Safety Manager and Nuclear Executive Leader, Mr. Lapointe has over 25 years of engineering, operations, and management experience.

Scott E. Ferrara—Team Advisor: Mr. Ferrara currently serves as a Senior Facility Representative for the U.S. Department of Energy (DOE) at the Advanced Test Reactor at the Idaho National Laboratory (INL). Mr. Ferrara has over 20 years of experience in the nuclear industry in Nuclear Operations, Facility Management, Production Management, and Federal Regulation. Mr. Ferrara has served as a Federal Regulator for DOE at the INL for the last 6 years. He has trained and assessed Safety Culture with the Utilities Services Alliance (USA) in Nuclear Regulatory Commission-regulated facilities.

Ronald E. Elsasser—Team Safety Culture Subject Matter Expert: Mr. Elsasser is currently the Deputy Director for Performance Improvement and Learning for the Advanced Test Reactor Program at the Idaho National Laboratory. He has been a member of Safety Culture working groups and has presented to Federal and Nuclear Industry audiences on the subject of Safety Culture and Safety Conscious Work Environment. Mr. Elsasser has been an Oversight and Assurance Manager, Lead Assessor, and Corrective Action and Issues Management Program Owner for the Advanced Test Reactor. He is the Nuclear Safety Culture Monitoring Plan author for the Nuclear Facilities at Idaho National Laboratory. Mr. Elsasser has experience with Utilities Services Alliance (USA), Synergy, and the Institute of Nuclear Power Operations Safety Culture/Safety Conscious Work Environment assessments. He has attended the Morgan Lewis Safety Conscious Work Environment for Senior Nuclear Plant Managers training.

Appendix D

Self-Assessment Lessons Learned

CWI SCWE Self-Assessment
Lessons Learned

This self-assessment was the first of its kind conducted at the Idaho Site. As such, the entire review team gathered many lessons learned to improve future similar reviews. Many of these lessons learned were incorporated into the DOE Idaho Operations Office SCWE self-assessment that occurred immediately following this CWI SCWE review.

Overall

- Allow sufficient preparation time for the review, including survey development and testing, communications to employees, time to analyze survey data prior to interviews, and team member training.
- Provide clear examples of positive observations, negative observations, and recommendations to enable development by team members during the review.
- Provide clear examples and format of expected area write-ups to enable use by the team members to gain consistency in presentation of results.
- HQ-provided SCWE guidance for team composition was very important and invaluable—initial impression was team overkill; however, the data manager, Executive, Advisor, and safety culture SME were invaluable members of the team.

Survey

- Incorporate demographics if possible—it could be advantageous to understand several demographics associated with those conducting the survey, including data such as: length of service with the company, work group or function, age, and work location.
- Include ability of those taking the survey to comment on each question—this capability was included, and the information provided another source of data to understand the basis of responses.
- Reduce the number of survey questions to a minimum set—this survey was on the order of 63 questions, and was considered long by many surveyed (however, based on trial runs, the survey only took 15-20 minutes to complete per individual).
- Consider options for employees to *more* anonymously respond to the survey, through the use of paper surveys, stand-alone computers (i.e., computers not assigned to the employees), etc.
- Communications—ensure organization being surveyed has communicated to all employees: the purpose of the survey, expected length of time to complete the survey, and how the survey results will be used.

Interviews

- Conducting practice interviews in the team training session prior to the review was extremely beneficial in giving interviewers experience conducting interviews, taking notes, compiling data, and instilling a sense of confidence in the interviewers in the process.
- Provide an option for employees to answer "I don't know" to the interview questions; otherwise, the responses may erroneously skew data to the neutral side (e.g., in the case of "contract incentives," most workers were not knowledgeable of specific contract incentives and measures in place to conserve the employees' ability to raise safety concerns in a heavily incentivized production contract).
- Provide adequate time for the team to conduct the interview portion of the review:
  - Individual interviews usually take a minimum of 45–60 minutes.
  - Team members should have 20–30 minutes between interviews to review interview results, document results, and provide a rest period for interviewers.
  - Group interviews take longer than individual interviews, and can take 60–90 minutes.
- Make sure the interview setting is sufficiently private, accessible, and appropriate.
- Optimal interview sequence is to interview workers first, followed by supervisors, then mid-level management, then senior management.
- When developing the review team members and interviewers, *consider* not having managers interviewing workers.
- Ensure interview questions are laid out in a question format, and not just an attribute statement.
- Plan ahead to ensure interview data sheets can be scanned and emailed in a timely manner to the data manager/upload individual for those interviews conducted at remote locations.
- Communications—Ensure the organization communicates to all employees: purpose of interviews, expected length of interviews, how interviewees were selected (randomly), anonymity of interviews, and how the results of the interviews will be used.

Team Meetings

- Allow sufficient time for daily team meetings—1 hour is insufficient to also allow time for problem statement development and data analysis.
- Plan ahead how to conduct team meetings to include those members at remote locations.
- Daily team meetings were sufficient to share information/observations/trends.

Appendix E

SCWE Interview Lines of Inquiry and Electronic Survey Results

SCWE Interview Lines of Inquiry and Electronic Survey Results

Question ID	Category and Questions	Negative	Neutral	Positive	NA
DL.1a	Managers and Supervisors ensure work activities, procedures, and processes are performed with safety as the overriding priority.	3.68%	7.58%	88.63%	0.12%
DL.2a	My Managers and Supervisors communicate upcoming changes and ensure the changes do not result in safety issues for me.	5.23%	11.53%	81.57%	1.66%
DL.3a	I understand that I am personally responsible for safety and clearly understand my work activities and performance objectives.	1.90%	1.78%	96.2%	0.12%
DL.4a	My Manager and Supervisor clearly demonstrate safety in their actions and behaviors by performing walk-throughs and personal visits verifying expectations are met.	4.88%	11.43%	81.42%	2.26%
DL.5a	Management ensures production and safety goals are tied together to produce high reliability within my organization.	4.43%	15.67%	77.75%	2.15%
DL.4b	Management ensures any concerns raised are addressed.	4.52%	12.74%	82.26%	0.48%
DL6a	The organization maintains facilities in a manner that supports both production and the safe performance of work.	7.23%	16.99%	74.94%	0.84%
CD.1a	My co-workers follow procedures and make conservative decisions that support safe and reliable operations.	2.14%	7.61%	89.54%	0.71%
CD.2a	Management fully supports conservative decision-making despite cost or schedule pressure.	11.34%	21.72%	66.11%	0.84%
CD.3a	My immediate supervisor supports my right to stop work if I see something unsafe.	1.32%	4.22%	93.6%	0.84%
ME.1a	Management makes it a priority to spend time in the field and listen to employees so they have real time information.	7.87%	18.59%	70.68%	2.86%
ME.2a	My Management puts eyes on the work in the field and asks questions, coaches, and mentors to reinforce safe behaviors.	6.68%	17.90%	71.48%	3.94%
ME.3a	Management is directly involved in providing high quality training that demonstrates expected behaviors.	8.59%	22.79%	66.69%	2.03%
OC.1a	I can trust my management and the decisions they make.	7.89%	19.50%	72.49%	0.12%
OC.2a	Management wants concerns reported and willingly listens to problems.	4.79%	12.93%	80.93%	0.24%
OC.3a	I feel free to approach Management with any concerns I have.	8.01%	12.08%	79.79%	0.12%

Question ID	Category and Questions	Negative	Neutral	Positive	NA
OC.4a	Management does not tolerate retaliation of any kind for raising concerns.	8.61%	19.26%	71.06%	1.08%
OC.4b	I would report a problem to the Employee Concerns Program if needed.	11.97%	11.84%	75.24%	0.96%
OC.5a	I can openly challenge decisions made by Management.	16.01%	22.94%	60.09%	0.96%
OC.6a	My Supervisor responds to questions in an open and honest way.	5.15%	13.17%	79.81%	1.32%
CE.1a	Managers and Supervisors review key safety roles and responsibilities and ensure expectations are being met.	2.88%	14.89%	80.67%	1.56%
CE.1b	My Manager and Supervisor give me feedback regularly on my performance.	13.32%	21.25%	64.83%	0.60%
CE.2a	All personnel at the site are held accountable for meeting safety standards and reporting concerns.	4.08%	11.76%	81.87%	2.28%
CE.3a	Personnel are recognized for excellent performance as well as for identifying areas of performance that need improvement.	13.34%	24.04%	62.02%	0.06%
CE.4a	I am responsible for identifying problems.	0.48%	4.32%	94.96%	0.24%
TM.1a	Open communication and teamwork are the way we always do business.	8.77%	16.95%	74.16%	0.12%
TM.2a	Employees at all levels listen to each other, work together, and respect differing opinions.	11.07%	24.43%	64.02%	0.48%
TM.3a	When problems occur, everyone focuses on problem solving not individuals.	11.67%	23.23%	63.90%	1.20%
TM.4a	My Management values and shares both good and bad news.	6.25%	16.85%	76.65%	0.24%
TM.5a	Helpful (constructive) criticism is encouraged.	7.67%	23.50%	67.87%	0.96%
CT.1a	I trust my Management Team and they continually earn my trust through their actions and decisions.	9.72%	21.70%	67.99%	0.60%
CT.2a	My Management openly and honestly provides me with accurate and timely information.	9.48%	21.61%	68.43%	0.48%
CT.3a	Reporting individual errors is encouraged and valued.	9.23%	26.62%	62.71%	1.44%
CT.4a	Line Managers and Supervisors appreciate and value safety issues and error reporting.	5.06%	16.77%	75.99%	2.17%
CT.5a	My Managers and Supervisors have my trust because they are honest and ethical.	9.06%	19.64%	70.96%	0.24%

Question ID	Category and Questions	Negative	Neutral	Positive	NA
CT.5b	People are treated with dignity and respect by the Leadership.	9.49%	18.15%	72.23%	0.12%
CT.6a	Mistakes are used as opportunities to learn vice placing blame.	12.47%	26.51%	56.42%	4.60%
ER.1a	Our corrective action program prioritizes and corrects identified issues in a timely manner.	5.42%	20.24%	70.85%	3.49%
ER1.b	My company's corrective action system is easy to use.	9.29%	34.14%	49.32%	7.24%
ER.2a	The corrective action process gets to the real issue and corrective actions help prevent recurrence.	6.50%	24.58%	65.30%	3.61%
ER2.b	Performance assurance activities and cause analysis performed are effective.	5.89%	31.61%	53.85%	8.65%
ER.3a	Weaknesses in performance are trended, communicated, and corrected.	8.93%	32.21%	53.08%	5.79%
ER.4a	Our organization uses relevant Lessons Learned in our work to help prevent similar errors or safety concerns from occurring.	2.88%	10.70%	84.97%	1.44%
ER.5a	Incidents are reviewed quickly and with a graded approach to identify improvement opportunities.	3.72%	18.61%	74.55%	3.12%
ER.6a	We are encouraged, recognized, and rewarded for offering innovative ideas to improve performance and to solve problems.	11.65%	23.37%	64.58%	0.60%
ER6.b	When I raise issues, I am involved in determining the solution to the problem.	5.90%	19.16%	72.00%	4.94%
ER.6c	When I raise issues, I do receive feedback on the resolution of the issue.	6.62%	20.00%	67.59%	5.78%
ER.6d	I am given the opportunity to be involved with identifying and completing corrective actions for safety issues.	4.58%	20.36%	69.15%	5.90%
ER.6e	I feel adequately involved in improvement initiatives at my work location.	6.50%	22.26%	68.47%	2.77%
PM.1a	My manager maintains awareness of key performance indicators related to safe work accomplishment, watches carefully for adverse trends or indications, and takes prompt action to understand adverse trends and anomalies.	4.21%	21.78%	68.95%	5.05%
PM.2a	Performance assurance consists of frequent and independent self-assessments conducted at all levels of the organization.	5.69%	25.09%	63.76%	5.45%
PM.2b	I am encouraged to disclose information fully and completely to audit and independent oversight personnel.	3.50%	14.98%	77.77%	3.74%

Question ID	Category and Questions	Negative	Neutral	Positive	NA
PM.3a	My Managers and Supervisors take part in oversight activities in the field and improve work activities from the results.	5.44%	17.51%	72.71%	4.35%
PM.4a	My organization monitors performance through multiple means, including walk-arounds, issue reporting, performance indicators, trend analysis, benchmarking, industry experience reviews, self-assessments, peer reviews, and performance assessments.	5.08%	19.32%	71.49%	4.11%
PM.5a	Our site continually improves systems, structures, processes, and procedures through performance monitoring.	6.04%	24.18%	67.23%	2.54%
PM.6a	I have confidence my Management is involved in all phases of performance monitoring, problem analysis, solution planning, and solution implementation to resolve safety issues.	5.32%	19.44%	73.43%	1.81%
PM.7a	Our organization is concerned with our safety culture and monitors it periodically.	3.25%	9.16%	86.98%	0.60%
QA.1a	My management encourages a questioning attitude toward safety, and supports constructive discussions by everyone involved on safety matters.	2.41%	9.89%	87.21%	0.48%
QA.1b	People at our site are comfortable challenging each other, regardless of position or level, if they feel something isn't right.	10.78%	17.82%	70.66%	0.73%
QA.2a	Everyone questions deviations and does not get complacent based on past successes.	7.36%	28.43%	62.57%	1.58%
QA.3a	When issues arise that are out of the normal, a focus on proving why it is safe to proceed is supported vice why it isn't unsafe.	5.45%	22.40%	65.13%	7.02%
CI.1a	Incentives are in place that help prevent budget or schedule pressures from influencing people's willingness to identify concerns or reducing the effectiveness of safety management programs.	17.73%	31.72%	45.03%	5.07%
CI.1b	Our contract incentives balance production and safety.	12.20%	32.37%	49.15%	6.28%

Shaded = Top Ten Survey Results

Shaded = Bottom Ten Survey Results